WEST Search History

DATE: Thursday, February 20, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR			
L15	l14 and alpha adj 2 adj macroglobulin adj receptor	16	L15
L14	L13 and immune near5 response	1153	L14
L13	heat adj shock adj protein and fragment$	2713	L13
L12	alpha adj 2 adj macroglobulin adj receptor and tissue adj type adj plasminogen adj activator	4	L12
DB=USPT; PLUR=YES; OP=OR			
L11	l10 and alpha adj 2 adj macroglobulin adj receptor	1	L11
L10	6239106.pn.	1	L10
DB=EPAB; PLUR=YES; OP=OR			
L9	WO009950303A2	1	L9
DB=USPT,PGPB; PLUR=YES; OP=OR			
L8	5639876.pn.	1	L8
L7	L5 and heat adj shock adj protein	1	L7
L6	L5 and heat shock protein	293476	L6
L5	6403080.pn.	1	L5
L4	heat adj shock adj protein and alpha adj 2 adj macroglobulin	61	L4
L3	heat adj shock adj protein near10 alpha adj 2 adj macroglobulin	2	L3
L2	heat adj shock adj protein near10 cd91	0	L2
L1	modulat$ and heat adj shock adj protein near10 cd91	0	L1

END OF SEARCH HISTORY

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 NEWS  2  Apr 08  "Ask CAS" for self-help around the clock
 NEWS  3  Apr 09  BEILSTEIN: Reload and Implementation of a New Subject Area
 NEWS  4  Apr 09  ZDB will be removed from STN
 NEWS  5  Apr 19  US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
 NEWS  6  Apr 22  Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
 NEWS  7  Apr 22  BIOSIS Gene Names now available in TOXCENTER
 NEWS  8  Apr 22  Federal Research in Progress (FEDRIP) now available
 NEWS  9  Jun 03  New e-mail delivery for search results now available
 NEWS 10  Jun 10  MEDLINE Reload
 NEWS 11  Jun 10  PCTFULL has been reloaded
 NEWS 12  Jul 02  FOREGE no longer contains STANDARDS file segment
 NEWS 13  Jul 22  USAN to be reloaded July 28, 2002;
                  saved answer sets no longer valid
 NEWS 14  Jul 29  Enhanced polymer searching in REGISTRY
 NEWS 15  Jul 30  NETFIRST to be removed from STN
 NEWS 16  Aug 08  CANCERLIT reload
 NEWS 17  Aug 08  PHARMAMarketLetter(PHARMAML) - new on STN
 NEWS 18  Aug 08  NTIS has been reloaded and enhanced
 NEWS 19  Aug 19  Aquatic Toxicity Information Retrieval (AQUIRE)
                  now available on STN
 NEWS 20  Aug 19  IFIPAT, IFICDB, and IFIUDB have been reloaded
 NEWS 21  Aug 19  The MEDLINE file segment of TOXCENTER has been reloaded
 NEWS 22  Aug 26  Sequence searching in REGISTRY enhanced
 NEWS 23  Sep 03  JAPIO has been reloaded and enhanced
 NEWS 24  Sep 16  Experimental properties added to the REGISTRY file
 NEWS 25  Sep 16  CA Section Thesaurus available in CAPLUS and CA
 NEWS 26  Oct 01  CASREACT Enriched with Reactions from 1907 to 1985
 NEWS 27  Oct 21  EVENTLINE has been reloaded
 NEWS 28  Oct 24  BEILSTEIN adds new search fields
 NEWS 29  Oct 24  Nutraceuticals International (NUTRACEUT) now available on STN
 NEWS 30  Oct 25  MEDLINE SDI run of October 8, 2002
 NEWS 31  Nov 18  DKILIT has been renamed APOLLIT
 NEWS 32  Nov 25  More calculated properties added to REGISTRY
 NEWS 33  Dec 02  TIBKAT will be removed from STN
 NEWS 34  Dec 04  CSA files on STN
 NEWS 35  Dec 17  PCTFULL now covers WP/PCT Applications from 1978 to date
 NEWS 36  Dec 17  TOXCENTER enhanced with additional content
 NEWS 37  Dec 17  Adis Clinical Trials Insight now available on STN
 NEWS 38  Dec 30  ISMEC no longer available
 NEWS 39  Jan 13  Indexing added to some pre-1967 records in CA/CAPLUS
 NEWS 40  Jan 21  NUTRACEUT offering one free connect hour in February 2003
 NEWS 41  Jan 21  PHARMAML offering one free connect hour in February 2003
 NEWS 42  Jan 29  Simultaneous left and right truncation added to COMPENDEX,
                  ENERGY, INSPEC
 NEWS 43  Feb 13  CANCERLIT is no longer being updated

 NEWS EXPRESS  January 6 CURRENT WINDOWS VERSION IS V6.01a,
               CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
               AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
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FILE 'HOME' ENTERED AT 15:25:49 ON 20 FEB 2003

=> file medline, cancerlit, biosis, confsci, embase, caplus, uspatfull
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                    0.21       0.21

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FILE 'CANCERLIT' ENTERED AT 15:26:27 ON 20 FEB 2003

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FILE 'USPATFULL' ENTERED AT 15:26:27 ON 20 FEB 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> s heat (a) shock (a) protein
L1        72563 HEAT (A) SHOCK (A) PROTEIN

=> s l1 and alpha (a) 2 (a) macroglobulin (a) receptor
L2           40 L1 AND ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3           33 DUP REM L2 (7 DUPLICATES REMOVED)

=> d 1-33 ibib

L3   ANSWER 1 OF 33  USPATFULL
ACCESSION NUMBER:         2003:40533  USPATFULL
TITLE:                    Methods for the inhibition of epstein-barr virus
                          transmission employing anti-viral peptides capable of
                          abrogating viral fusion and transmission
INVENTOR(S):              Barney, Shawn O'Lin, Cary, NC, United States
                          Lambert, Dennis Michael, Cary, NC, United States
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Petteway, Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6518013	B1	20030211
APPLICATION INFO.:	US 1995-485546		19950607 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP, Nelson, M. Bud
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 24700
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 2 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:220849 CAPLUS
DOCUMENT NUMBER: 136:258282
TITLE: Diagnosis of diabetes mellitus and insulin resistance by measuring the expression of genes associated with obesity
INVENTOR(S): Attie, Alan D.; Nadler, Samuel T.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022886	A2	20020321	WO 2001-US29096	20010918
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001091059	A5	20020326	AU 2001-91059	20010918
US 2003013093	A1	20030116	US 2001-955367	20010918

PRIORITY APPLN. INFO.: US 2000-233339P P 20000918
WO 2001-US29096 W 20010918

L3 ANSWER 3 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:107501 CAPLUS
DOCUMENT NUMBER: 136:162278
TITLE: Gene expression profile for Kaposi's sarcoma herpesvirus infection and methods for treating Kaposi sarcoma and inhibiting replication of human herpesvirus 8
INVENTOR(S): Luukkonen, Mattias; Moses, Ashlee; Frueh, Klaus; Nelson, Jay; Bell, Yolanda; Heinrich, Michael; Simmen, Kenneth
PATENT ASSIGNEE(S): Ortho-McNeil Pharmaceutical, Inc., USA; Oregon Health & Science University
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002010339	A2	20020207	WO 2001-US24469	20010801
WO 2002010339	A3	20020404		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2000-222162P P 20000802

L3 ANSWER 4 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:937303 CAPLUS
DOCUMENT NUMBER: 138:20443
TITLE: Endocrine disruptor screening using DNA chips of endocrine disruptor-responsive genes
INVENTOR(S): Kondo, Akihiro; Takeda, Takeshi; Mizutani, Shigetoshi; Tsujimoto, Yoshimasa; Takashima, Ryokichi; Enoki, Yuki; Kato, Ikunoshin
PATENT ASSIGNEE(S): Takara Bio Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 386 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002355079	A2	20021210	JP 2002-69354	20020313

PRIORITY APPLN. INFO.: JP 2001-73183 A 20010314
JP 2001-74993 A 20010315
JP 2001-102519 A 20010330

L3 ANSWER 5 OF 33 USPATFULL
ACCESSION NUMBER: 2002:315069 USPATFULL
TITLE: Compositions and methods for treatment of neoplastic disease
INVENTOR(S): Terman, David S., Pebble Beach, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002177551	A1	20021128
APPLICATION INFO.:	US 2001-870759	A1	20010530 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-208128P	20000531 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: David S. Terman, P.O. Box 987, Pebble Beach, CA, 93953
NUMBER OF CLAIMS: 30
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 17323
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 6 OF 33 USPATFULL
ACCESSION NUMBER: 2002:259381 USPATFULL
TITLE: Materials and methods relating to lipid metabolism
INVENTOR(S): Ballinger, Dennis G., Menlo Park, CA, UNITED STATES
Loeb, Deborah, San Jose, CA, UNITED STATES
Montgomery, Julie R., Santa Cruz, CA, UNITED STATES
Tang, Y. Tom, San Jose, CA, UNITED STATES
Zhou, Ping, Cupertino, CA, UNITED STATES
Goodrich, Ryle, San Jose, CA, UNITED STATES
Liu, Chenghua, San Jose, CA, UNITED STATES
Asundi, Vinod, Foster City, CA, UNITED STATES
Zhao, Qing A., San Jose, CA, UNITED STATES
Wehrman, Tom, Stanford, CA, UNITED STATES
Drmanac, Radoje T., Palo Alto, CA, UNITED STATES
Ren, Feiyan, Cupertino, CA, UNITED STATES
Qian, Xiaohong B., San Jose, CA, UNITED STATES
Wang, Dunrui, Poway, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002142953	A1	20021003
APPLICATION INFO.:	US 2001-835996	A1	20010416 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-714936, filed on 17 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-667298, filed on 22 Sep 2000, PENDING Continuation-in-part of Ser. No. US 2000-631451, filed on 3 Aug 2000, PENDING Continuation-in-part of Ser. No. US 2000-598042, filed on 20 Jun 2000, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-197137P	20000414 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MARSHALL, GERSTEIN & BORUN, 6300 SEARS TOWER, 233 SOUTH WACKER, CHICAGO, IL, 60606-6357
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 30 Drawing Page(s)
LINE COUNT: 9120
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 7 OF 33 USPATFULL
ACCESSION NUMBER: 2002:206116 USPATFULL
TITLE: Toxicant-induced differential gene expression
INVENTOR(S): Reidhaar-Olson, John F., Montclair, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002110808	A1	20020815
APPLICATION INFO.:	US 2000-489220	A1	20000121 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: VICKI G. NORTON, ESQ., BROBECK, PHLEGER AND HARRISON LLP, 12390 EL COMINO REAL, SAN DIEGO, CA, 92130
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Page(s)
LINE COUNT: 5161
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 8 OF 33 USPATFULL
ACCESSION NUMBER: 2002:164658 USPATFULL
TITLE: Immunotherapeutic methods for extracorporeal modulation of CD36 and its ligands
INVENTOR(S): Srivastava, Pramod K., Avon, CT, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002086276	A1	20020704
APPLICATION INFO.:	US 2000-750973	A1	20001228 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
LINE COUNT: 1813
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 9 OF 33 USPATFULL
ACCESSION NUMBER: 2002:66639 USPATFULL
TITLE: Compositions comprising **heat shock proteins** or alpha(2) macroglobulin, antigenic molecules and saponins, and methods of use thereof
INVENTOR(S): Armen, Garo H., Manhasset, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002037290	A1	20020328
APPLICATION INFO.:	US 2001-909778	A1	20010720 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-223133P	20000807 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY, 10036-2711
NUMBER OF CLAIMS: 119
EXEMPLARY CLAIM: 1
LINE COUNT: 4136
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 10 OF 33 USPATFULL
ACCESSION NUMBER: 2002:48016 USPATFULL
TITLE: Complexes of alpha (2) macroglobulin and antigenic molecules for immunotherapy
INVENTOR(S): Srivastava, Pramod K., Avon, CT, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002028207	A1	20020307
APPLICATION INFO.:	US 2001-873403	A1	20010604 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-625139, filed on 25 Jul 2000, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-209266P	20000602 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW

YORK, NY, 100362711
NUMBER OF CLAIMS: 36
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 65 Drawing Page(s)
LINE COUNT: 4477
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 11 OF 33 USPATFULL
ACCESSION NUMBER: 2002:297296 USPATFULL
TITLE: Methods for inhibition of membrane fusion-associated events, including respiratory syncytial virus transmission
INVENTOR(S): Bolognesi, Dani Paul, Durham, NC, United States
Matthews, Thomas James, Durham, NC, United States
Wild, Carl T., Durham, NC, United States
Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
Langlois, Alphonse J., Durham, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6479055	B1	20021112
APPLICATION INFO.:	US 1995-470896		19950606 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Stucker, Jeffrey
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 44
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 26553
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 12 OF 33 USPATFULL
ACCESSION NUMBER: 2002:136555 USPATFULL
TITLE: Methods of modulating an immune response to antigen, and cells for use in the method
INVENTOR(S): Segal, Andrew H., Boston, MA, United States
PATENT ASSIGNEE(S): Whitehead Institute for Biomedical Research, Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6403080	B1	20020611
APPLICATION INFO.:	US 1999-339523		19990624 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-826259, filed on 27 Mar 1997, now patented, Pat. No. US 5951976

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-14364P	19960328 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Bansal, Geetha P.
LEGAL REPRESENTATIVE: Williams, Kathleen Madden, Palmer & Dodge, LLP
NUMBER OF CLAIMS: 25
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 2153
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 13 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:471412 CAPLUS
DOCUMENT NUMBER: 137:92694
TITLE: The endoplasmic reticulum-resident **heat shock protein** Gp96 activates dendritic cells via the toll-like receptor 2/4 pathway
AUTHOR(S): Vabulas, Ramunas M.; Braedel, Sibylla; Hilf, Norbert; Singh-Jasuja, Harpreet; Herter, Sylvia; Ahmad-Nejad, Parviz; Kirschning, Carsten J.; da Costa, Clarissa; Rammensee, Hans-Georg; Wagner, Hermann; Schild, Hansjorg
CORPORATE SOURCE: Institute for Medical Microbiology, Immunology and Hygiene, Technical University of Munich, Munich, D-81675, Germany
SOURCE: Journal of Biological Chemistry (2002), 277(23), 20847-20853
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:899128 CAPLUS
DOCUMENT NUMBER: 138:88135
TITLE: Structure-function studies of the receptors for complement C1q
AUTHOR(S): McGreal, E.; Gasque, P.
CORPORATE SOURCE: University of Oxford, Sir William Dunn School of Pathology, Oxford, OX1 3RE, UK
SOURCE: Biochemical Society Transactions (2002), 30(6), 1010-1014
CODEN: BCSTB5; ISSN: 0300-5127
PUBLISHER: Portland Press Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 15 OF 33 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2002051981 MEDLINE
DOCUMENT NUMBER: 21636470 PubMed ID: 11777948
TITLE: The receptor for **heat shock protein** 60 on macrophages is saturable, specific, and distinct from receptors for other **heat shock proteins**.
AUTHOR: Habich Christiane; Baumgart Karina; Kolb Hubert; Burkart Volker
CORPORATE SOURCE: German Diabetes Research Institute at the Heinrich-Heine-University of Dusseldorf, Dusseldorf, Germany.. christiane.habich@ddfi.uni-duesseldorf.de
SOURCE: JOURNAL OF IMMUNOLOGY, (2002 Jan 15) 168 (2) 569-76. Journal code: 2985117R. ISSN: 0022-1767.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200201

ENTRY DATE: Entered STN: 20020125
Last Updated on STN: 20020201
Entered Medline: 20020131

L3 ANSWER 16 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:183243 CAPLUS
DOCUMENT NUMBER: 136:308105
TITLE: **Heat shock proteins** 70 and 60 share common receptors which are expressed on human monocyte-derived but not epidermal dendritic cells
AUTHOR(S): Lipsker, Dan; Ziylan, Umit; Spehner, Daniele; Proamer, Fabienne; Bausinger, Huguette; Jeannin, Pascale; Salamero, Jean; Bohbot, Alain; Cazenave, Jean-Pierre; Drillien, Robert; Delneste, Yves; Hanau, Daniel; De la Salle, Henri
CORPORATE SOURCE: INSERM, Equipe Propre 99-08, Etablissement Francais du Sang - Alsace, Strasbourg, Fr.
SOURCE: European Journal of Immunology (2002), 32(2), 322-332
CODEN: EJIMAF; ISSN: 0014-2980
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 33 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2
ACCESSION NUMBER: 2001:828415 CAPLUS
DOCUMENT NUMBER: 137:89412
TITLE: Detection of variations in the DNA methylation profile of genes in the determining the risk of disease
INVENTOR(S): Berlin, Kurt; Piepenbrock, Christian; Olek, Alexander
PATENT ASSIGNEE(S): Epigenomics A.-G., Germany
SOURCE: PCT Int. Appl., 636 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 68
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077373	A2	20011018	WO 2001-XA1486	20010406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, CF, CG, CI, CM, GA, GW, ML, MR, NE, SN, TD, TG				
DE 10019058	A1	20011220	DE 2000-10019058	20000406
WO 2001077373	A2	20011018	WO 2001-DE1486	20010406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1274865	A2	20030115	EP 2001-953936	20010406
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			DE 2000-10019058	A 20000406
			WO 2001-DE1486	W 20010406
			DE 2000-10019173	A 20000407
			DE 2000-10032529	A 20000630
			DE 2000-10043826	A 20000901
			WO 2001-EP3969	W 20010406

L3 ANSWER 18 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:886449 CAPLUS
DOCUMENT NUMBER: 136:36328
TITLE: **Alpha 2 macroglobulin receptors as a heat shock protein** receptor and uses thereof
INVENTOR(S): Srivastava, Pramod K.
PATENT ASSIGNEE(S): University of Connecticut Health Center, USA
SOURCE: PCT Int. Appl., 236 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001092474	A1	20011206	WO 2001-US18041	20010604
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRIORITY APPLN. INFO.:			US 2000-209095P	P 20000602
			US 2000-625137	A 20000725
			US 2000-668724	A 20000922
			US 2000-750972	A 20001228
REFERENCE COUNT:	1	THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L3 ANSWER 19 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:885810 CAPLUS
DOCUMENT NUMBER: 136:36322
TITLE: Complexes of .alpha.2-macroglobulin and antigenic molecules for immunotherapy
INVENTOR(S): Srivastava, Pramod K.
PATENT ASSIGNEE(S): University of Connecticut Health Center, USA
SOURCE: PCT Int. Appl., 160 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001091787	A1	20011206	WO 2001-US18047	20010604
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRIORITY APPLN. INFO.:			US 2000-209266P	P 20000602
			US 2000-625139	A 20000725
REFERENCE COUNT:	1	THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L3 ANSWER 20 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:851435 CAPLUS
DOCUMENT NUMBER: 136:1570
TITLE: Compositions, kits, and methods for identification and

modulation of T helper-1 and T helper-2 cells and diseases associated therewith

INVENTOR(S): Hanrahan, Catherine F.; Feldman, Marc; Trepicchio, William L.

PATENT ASSIGNEE(S): Genetics Institute, Inc., USA; Kennedy Institute of Rheumatology

SOURCE: PCT Int. Appl., 115 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001088199	A2	20011122	WO 2001-US16022	20010517
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002039734	A1	20020404	US 2001-860655	20010517

PRIORITY APPLN. INFO.: US 2000-205204P P 20000518

L3 ANSWER 21 OF 33 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:676999 CAPLUS

DOCUMENT NUMBER: 135:252790

TITLE: Single nucleotide polymorphisms in human genes

INVENTOR(S): Cargill, Michele; Ireland, James S.; Lander, Eric S.

PATENT ASSIGNEE(S): Whitehead Institute for Biomedical Research, USA

SOURCE: PCT Int. Appl., 145 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001066800	A2	20010913	WO 2001-US7268	20010307
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002032319	A1	20020314	US 2001-801274	20010307

PRIORITY APPLN. INFO.: US 2000-187510P P 20000307
US 2000-206129P P 20000522

L3 ANSWER 22 OF 33 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:319729 CAPLUS

DOCUMENT NUMBER: 134:320865

TITLE: Regulation of apoB for diagnosis, treatment and drug screening for cardiovascular and metabolic disorders or syndromes

INVENTOR(S): Fisher, Edward A.; Williams, Kevin Jon

PATENT ASSIGNEE(S): Thomas Jefferson University, USA

SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001030354	A1	20010503	WO 2000-US29699	20001026
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 1999-161537P P 19991026

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 23 OF 33 USPATFULL

ACCESSION NUMBER: 2001:67794 USPATFULL

TITLE: Human respiratory syncytial virus peptides with antifusogenic and antiviral activities

INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States

PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6228983	B1	20010508
APPLICATION INFO.:	US 1995-485264		19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Scheiner, Laurie

ASSISTANT EXAMINER: Parkin, Jeffrey S.

LEGAL REPRESENTATIVE: Pennie & Edmonds LLP

NUMBER OF CLAIMS: 62

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)

LINE COUNT: 32166

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 24 OF 33 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:286503 CAPLUS

DOCUMENT NUMBER: 135:136110

TITLE: Adjuvanticity of .alpha.2-macroglobulin, an independent ligand for the **heat shock protein** receptor CD91

AUTHOR(S): Binder, Robert J.; Karimeddini, David; Srivastava, Pramod K.

CORPORATE SOURCE: Center for Immunotherapy of Cancer and Infectious Diseases, University of Connecticut School of Medicine, Farmington, CT, 06030, USA

SOURCE: Journal of Immunology (2001), 166(8), 4968-4972
CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 25 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:782994 CAPLUS
DOCUMENT NUMBER: 136:68297
TITLE: To find the road traveled to tumor immunity: the trafficking itineraries of molecular chaperones in antigen-presenting cells
AUTHOR(S): Berwin, B.; Nicchitta, C. V.
CORPORATE SOURCE: Department of Cell Biology, Duke University Medical Center, Durham, NC, 27710, USA
SOURCE: Traffic (Copenhagen, Denmark) (2001), 2(10), 690-697
CODEN: TRAFFA; ISSN: 1398-9219
PUBLISHER: Munksgaard International Publishers Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 26 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:263289 CAPLUS
DOCUMENT NUMBER: 135:32507
TITLE: CD91 is a common receptor for **heat shock proteins** gp96, hsp90, hsp70, and calreticulin
AUTHOR(S): Basu, Sreyashi; Binder, Robert J.; Ramalingam, Thirumalai; Srivastava, Pramod K.
CORPORATE SOURCE: Center for Immunotherapy of Cancer and Infectious Diseases, University of Connecticut School of Medicine, Farmington, CT, 06030, USA
SOURCE: Immunity (2001), 14(3), 303-313
CODEN: IUNIEH; ISSN: 1074-7613
PUBLISHER: Cell Press
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 27 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:361126 CAPLUS
DOCUMENT NUMBER: 135:150447
TITLE: Differential expression of multiple genes during articular chondrocyte redifferentiation
AUTHOR(S): Haudenschild, Dominik R.; Mcpherson, John M.; Tubo, Ross; Binette, Francois
CORPORATE SOURCE: Genzyme Tissue Repair, Framingham, MA, USA
SOURCE: Anatomical Record (2001), 263(1), 91-98
CODEN: ANREAK; ISSN: 0003-276X
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 28 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:759895 CAPLUS
DOCUMENT NUMBER: 134:28172
TITLE: The expression of adipogenic genes is decreased in obesity and diabetes mellitus
AUTHOR(S): Nadler, Samuel T.; Stoehr, Jonathan P.; Schueler, Kathryn L.; Tanimoto, Gene; Yandell, Brian S.; Attie, Alan D.
CORPORATE SOURCE: Department of Biochemistry, University of Wisconsin, Madison, WI, 53706, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2000), 97(21), 11371-11376
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 29 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:908423 CAPLUS
DOCUMENT NUMBER: 134:203644
TITLE: Morphologic analysis correlates with gene expression changes in cultured F344 rat mesothelial cells
AUTHOR(S): Crosby, L. M.; Hyder, K. S.; DeAngelo, A. B.; Kepler, T. B.; Gaskill, B.; Benavides, G. R.; Yoon, L.; Morgan, K. T.
CORPORATE SOURCE: University of North Carolina at Chapel Hill, Curriculum in Toxicology/U.S. EPA NHEERL, Research Triangle Park, NC, 27711, USA
SOURCE: Toxicology and Applied Pharmacology (2000), 169(3), 205-221
CODEN: TXAPA9; ISSN: 0041-008X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 30 OF 33 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 2001216038 MEDLINE
DOCUMENT NUMBER: 21205395 PubMed ID: 11248808
TITLE: CD91: a receptor for **heat shock protein** gp96.
COMMENT: Comment in: Nat Immunol. 2000 Aug;1(2):100-1
AUTHOR: Binder R J; Han D K; Srivastava P K
CORPORATE SOURCE: Center for Immunotherapy of Cancer and Infectious Diseases, University of Connecticut School of Medicine, Farmington, CT 06030, USA.
CONTRACT NUMBER: CA64394 (NCI)
CA84479 (NCI)
SOURCE: Nat Immunol, (2000 Aug) 1 (2) 151-5.
Journal code: 100941354. ISSN: 1529-2908.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200105
ENTRY DATE: Entered STN: 20010521
Last Updated on STN: 20010521
Entered Medline: 20010517

L3 ANSWER 31 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:795994 CAPLUS
DOCUMENT NUMBER: 132:31744
TITLE: Gene probes used for genetic profiling in healthcare screening and planning
INVENTOR(S): Roberts, Gareth Wyn
PATENT ASSIGNEE(S): Genostic Pharma Ltd., UK
SOURCE: PCT Int. Appl., 745 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964627	A2	19991216	WO 1999-GB1780	19990604

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

GB 1998-12099	A	19980606
GB 1998-13291	A	19980620
GB 1998-13611	A	19980624
GB 1998-13835	A	19980627
GB 1998-14110	A	19980701
GB 1998-14580	A	19980707
GB 1998-15438	A	19980716
GB 1998-15574	A	19980718
GB 1998-15576	A	19980718
GB 1998-16085	A	19980724
GB 1998-16086	A	19980724
GB 1998-16921	A	19980805
GB 1998-17097	A	19980807
GB 1998-17200	A	19980808
GB 1998-17632	A	19980814
GB 1998-17943	A	19980819

L3 ANSWER 32 OF 33 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:795993 CAPLUS
DOCUMENT NUMBER: 132:31743
TITLE: Gene probes used for genetic profiling in healthcare screening and planning
INVENTOR(S): Roberts, Gareth Wyn
PATENT ASSIGNEE(S): Genostic Pharma Limited, UK
SOURCE: PCT Int. Appl., 149 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964626	A2	19991216	WO 1999-GB1779	19990604

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9941586	A1	19991230	AU 1999-41586	19990604
AU 9941587	A1	19991230	AU 1999-41587	19990604
GB 2339200	A1	20000119	GB 1999-12914	19990604
GB 2339200	B2	20010912		

EP 1084273 A1 20010321 EP 1999-925207 19990604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRIORITY APPLN. INFO.:

GB 1998-12098	A	19980606
GB 1998-28289	A	19981223
GB 1998-16086	A	19980724
GB 1998-16921	A	19980805
GB 1998-17097	A	19980807
GB 1998-17200	A	19980808
GB 1998-17632	A	19980814
GB 1998-17943	A	19980819
WO 1999-GB1779	W	19990604

L3 ANSWER 33 OF 33 USPATFULL
ACCESSION NUMBER: 1999:141305 USPATFULL
TITLE: Adjuvant for transcutaneous immunization
INVENTOR(S): Glenn, Gregory M., Bethesda, MD, United States
Alving, Carl R., Bethesda, MD, United States
PATENT ASSIGNEE(S): The United States of America as represented by the U.S. Army Medical Research & Material Command, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5980898		19991109
APPLICATION INFO.:	US 1997-896085		19970717 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1996-749164, filed on 14 Nov 1996
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Saunders, David
ASSISTANT EXAMINER: Tung, Mary Beth
LEGAL REPRESENTATIVE: Pillsbury, Madison & Sutro LLP
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1,11
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 1988
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d kwic 33

L3 ANSWER 33 OF 33 USPATFULL
DETD . . . granulocyte-monocyte-colony stimulating factor) (reviewed in Nohria and Rubin, 1994), a muramyl dipeptide derivative (e.g., murabutide, threonyl-MDP or muramyl tripeptide), a **heat shock protein** or a derivative, a derivative of Leishmania major LeIF (Skeiky et al., 1995), cholera toxin or cholera toxin B, a. . .

DETD Optionally, an activator of Langerhans cells may be used as an adjuvant. Examples of such activators include: inducers of **heat shock protein**; contact sensitizers (e.g., trinitrochlorobenzene, dinitrofluorobenzene, nitrogen mustard, pentadecylcatechol); toxins (e.g, Shiga toxin, Staph enterotoxin B); lipopolysaccharides, lipid A, or derivatives. . .

DETD . . . amino acid peptide with A and B domains on the same peptide and binds to an entirely different receptor, the **.alpha.2 -macroglobulin receptor**/low density lipoprotein receptor-related protein (Kounnas et al., 1992). Despite the dissimilarities between ETA and CT in size, structure, and binding. .

=> d kwic 12

L3 ANSWER 12 OF 33 USPATFULL
SUMM
TABLE 1

Exemplary Opsonin, APC binding moiety/APC receptor pairs useful
according to the invention.
 Exemplary APC Binding
Opsonin Moiety **Receptor**

.alpha.-2 macroglobulin Val(1299)-Ala(1451) of
      .alpha.-2 m receptor
 human .alpha.-2 m
C3b 42 N-terminal amino acids CR1
 of the .alpha.' chain of human
 C3b
C3bi. . .
SUMM . . . bacilli bacterial antigens such as lipopolysaccharides and
      other gram-negative bacterial antigen components; Mycobacterium
      tuberculosis bacterial antigens such as mycolic acid, **heat**
      shock protein 65 (HSP65), the 30kDa major secreted
      protein, antigen 85A and other mycobacterial antigen components;
      Helicobacter pylori bacterial antigen components; pneumococcal. . .
SUMM . . . and methods of the invention include, but are not limited to,
      candida fungal antigen components; histoplasma fungal antigens such as
      heat shock protein 60 (HSP60) and other
      histoplasma fungal antigen components; cryptococcal fungal antigens such
      as capsular polysaccharides and other cryptococcal fungal antigen. . .

=> his
HIS IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> d his

     (FILE 'HOME' ENTERED AT 15:25:49 ON 20 FEB 2003)

     FILE 'MEDLINE, CANCERLIT, BIOSIS, CONFSCI, EMBASE, CAPLUS, USPATFULL'
     ENTERED AT 15:26:27 ON 20 FEB 2003
L1   72563 S HEAT (A) SHOCK (A) PROTEIN
L2   40 S L1 AND ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L3   33 DUP REM L2 (7 DUPLICATES REMOVED)

=> s l1 and antibod?
L4   12721 L1 AND ANTIBOD?

=> s l4 abd l2
MISSING OPERATOR L4 ABD
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l4 and l2
L5   21 L4 AND L2

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6   19 DUP REM L5 (2 DUPLICATES REMOVED)

=> d 1-19

L6 ANSWER 1 OF 19 USPATFULL
AN   2003:40533 USPATFULL
TI   Methods for the inhibition of epstein-barr virus transmission employing
      anti-viral peptides capable of abrogating viral fusion and transmission
IN   Barney, Shawn O'Lin, Cary, NC, United States
      Lambert, Dennis Michael, Cary, NC, United States
      Petteway, Stephen Robert, Cary, NC, United States
PA   Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI   US 6518013   B1   20030211
AI   US 1995-485546   19950607 (8)
RLI   Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994,
      now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US
      1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US
      1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT   Utility
FS   GRANTED
LN.CNT 24700
INCL INCLM: 435/005.000
      INCLS: 424/230.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
NCL   NCLM: 435/005.000
      NCLS: 424/230.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
IC   [7]
      ICM: C12Q001-70
EXF   435/5; 530/300; 530/324-329; 530/350; 424/230.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2003 ACS
AN 2002:937303 CAPLUS
DN 138:20443
TI Endocrine disruptor screening using DNA chips of endocrine
    disruptor-responsive genes
IN Kondo, Akihiro; Takeda, Takeshi; Mizutani, Shigetoshi; Tsujimoto,
    Yoshimasa; Takashima, Ryokichi; Enoki, Yuki; Kato, Ikunoshin
PA Takara Bio Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 386 pp.
    CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002355079	A2	20021210	JP 2002-69354	20020313
PRAI	JP 2001-73183	A	20010314		
	JP 2001-74993	A	20010315		
	JP 2001-102519	A	20010330		

L6 ANSWER 3 OF 19 USPATFULL
AN   2002:315069 USPATFULL
TI   Compositions and methods for treatment of neoplastic disease
IN   Terman, David S., Pebble Beach, CA, UNITED STATES
PI   US 2002177551   A1   20021128
AI   US 2001-870759   A1   20010530 (9)
PRAI US 2000-208128P   20000531 (60)
DT   Utility
FS   APPLICATION
LN.CNT 17323
INCL INCLM: 514/012.000
      INCLS: 435/325.000; 530/350.000
NCL   NCLM: 514/012.000
      NCLS: 435/325.000; 530/350.000
IC   [7]
      ICM: A61K038-17
      ICS: C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 4 OF 19 USPATFULL
AN   2002:259381 USPATFULL
TI   Materials and methods relating to lipid metabolism

IN Ballinger, Dennis G., Menlo Park, CA, UNITED STATES
Loeb, Deborah, San Jose, CA, UNITED STATES
Montgomery, Julie R., Santa Cruz, CA, UNITED STATES
Tang, Y. Tom, San Jose, CA, UNITED STATES
Zhou, Ping, Cupertino, CA, UNITED STATES
Goodrich, Ryle, San Jose, CA, UNITED STATES
Liu, Chenghua, San Jose, CA, UNITED STATES
Asundi, Vinod, Foster City, CA, UNITED STATES
Zhao, Qing A., San Jose, CA, UNITED STATES
Wehrman, Tom, Stanford, CA, UNITED STATES
Drmanac, Radoje T., Palo Alto, CA, UNITED STATES
Ren, Feiyan, Cupertino, CA, UNITED STATES
Qian, Xiaohong B., San Jose, CA, UNITED STATES
Wang, Dunrui, Poway, CA, UNITED STATES
PI US 2002142953 A1 20021003
AI US 2001-835996 A1 20010416 (9)
RLI Continuation-in-part of Ser. No. US 2000-714936, filed on 17 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-667298, filed on 22 Sep 2000, PENDING Continuation-in-part of Ser. No. US 2000-631451, filed on 3 Aug 2000, PENDING Continuation-in-part of Ser. No. US 2000-598042, filed on 20 Jun 2000, PENDING
PRAI US 2000-197137P 20000414 (60)
DT Utility
FS APPLICATION
LN.CNT 9120
INCL INCLM: 514/012.000
INCLS: 435/069.100; 435/325.000; 435/320.100; 530/359.000; 435/196.000; 536/023.200
NCL NCLM: 514/012.000
NCLS: 435/069.100; 435/325.000; 435/320.100; 530/359.000; 435/196.000; 536/023.200
IC [7]
ICM: A61K038-17
ICS: C07H021-04; C12N009-16; C12P021-02; C12N005-06; C07K014-775
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 5 OF 19 USPATFULL
AN 2002:206116 USPATFULL
TI Toxicant-induced differential gene expression
IN Reidhaar-Olson, John F., Montclair, NJ, UNITED STATES
PI US 2002110808 A1 20020815
AI US 2000-489220 A1 20000121 (9)
DT Utility
FS APPLICATION
LN.CNT 5161
INCL INCLM: 435/006.000
INCLS: 435/091.200; 536/023.100
NCL NCLM: 435/006.000
NCLS: 435/091.200; 536/023.100
IC [7]
ICM: C12Q001-68
ICS: C07H021-02; C07H021-04; C12P019-34
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 6 OF 19 USPATFULL
AN 2002:164658 USPATFULL
TI Immunotherapeutic methods for extracorporeal modulation of CD36 and its ligands
IN Srivastava, Pramod K., Avon, CT, UNITED STATES
PI US 2002086276 A1 20020704
AI US 2000-750973 A1 20001228 (9)
DT Utility
FS APPLICATION
LN.CNT 1813
INCL INCLM: 435/002.000
INCLS: 424/140.100
NCL NCLM: 435/002.000
NCLS: 424/140.100
IC [7]
ICM: A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 7 OF 19 USPATFULL
AN 2002:66639 USPATFULL
TI Compositions comprising **heat shock proteins** or alpha(2) macroglobulin, antigenic molecules and saponins, and methods of use thereof
IN Armen, Garo H., Manhasset, NY, UNITED STATES
PI US 2002037290 A1 20020328
AI US 2001-909778 A1 20010720 (9)
PRAI US 2000-223133P 20000807 (60)
DT Utility
FS APPLICATION
LN.CNT 4136
INCL INCLM: 424/178.100
INCLS: 514/012.000; 514/026.000
NCL NCLM: 424/178.100
NCLS: 514/012.000; 514/026.000
IC [7]
ICM: A61K039-395
ICS: A61K038-17
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 8 OF 19 USPATFULL
AN 2002:48016 USPATFULL
TI Complexes of alpha (2) macroglobulin and antigenic molecules for immunotherapy
IN Srivastava, Pramod K., Avon, CT, UNITED STATES
PI US 2002028207 A1 20020307
AI US 2001-873403 A1 20010604 (9)
RLI Continuation-in-part of Ser. No. US 2000-625139, filed on 25 Jul 2000, PENDING
PRAI US 2000-209266P 20000602 (60)
DT Utility
FS APPLICATION
LN.CNT 4477
INCL INCLM: 424/185.100
INCLS: 424/190.100; 424/178.100; 530/391.100
NCL NCLM: 424/185.100
NCLS: 424/190.100; 424/178.100; 530/391.100
IC [7]
ICM: A61K039-40
ICS: A61K039-395; C07K016-46
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 9 OF 19 USPATFULL
AN 2002:297296 USPATFULL
TI Methods for inhibition of membrane fusion-associated events, including respiratory syncytial virus transmission
IN Bolognesi, Dani Paul, Durham, NC, United States
Matthews, Thomas James, Durham, NC, United States
Wild, Carl T., Durham, NC, United States
Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
Langlois, Alphonse J., Durham, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6479055 B1 20021112
AI US 1995-470896 19950606 (8)
RLI Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994,

now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS GRANTED
LN.CNT 26553
INCL INCLM: 424/211.100
INCLS: 424/186.100; 530/324.000
NCL NCLM: 424/211.100
NCLS: 424/186.100; 530/324.000
IC [7]
ICM: A61K039-145
EXF 435/5; 435/240.2; 424/184.1-189.1; 424/204.1-211.1; 424/225.1; 424/227.1; 424/230.1; 514/1; 514/2; 530/324; 530/350; 530/826
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 10 OF 19 USPATFULL
AN 2002:136555 USPATFULL
TI Methods of modulating an immune response to antigen, and cells for use in the method
IN Segal, Andrew H., Boston, MA, United States
PA Whitehead Institute for Biomedical Research, Cambridge, MA, United States (U.S. corporation)
PI US 6403080 B1 20020611
AI US 1999-339523 19990624 (9)
RLI Division of Ser. No. US 1997-826259, filed on 27 Mar 1997, now patented, Pat. No. US 5951976
PRAI US 1996-14364P 19960328 (60)
DT Utility
FS GRANTED
LN.CNT 2153
INCL INCLM: 424/093.100
INCLS: 424/093.200; 424/093.210; 424/093.700; 424/093.710; 424/136.100; 435/325.000; 514/002.000; 514/012.000; 530/387.300
NCL NCLM: 424/093.100
NCLS: 424/093.200; 424/093.210; 424/093.700; 424/093.710; 424/136.100; 435/325.000; 514/002.000; 514/012.000; 530/387.300
IC [7]
ICM: A01N063-00
ICS: A61K039-395; A61K038-00; C12P021-08
EXF 424/93.21; 424/93.7; 424/93.1; 424/93.2; 424/93.71; 424/136.1; 435/325; 514/12; 514/21; 530/387.3
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2003 ACS
AN 2002:899128 CAPLUS
DN 138:88135
TI Structure-function studies of the receptors for complement C1q
AU McGreal, E.; Gasque, P.
CS University of Oxford, Sir William Dunn School of Pathology, Oxford, OX1 3RE, UK
SO Biochemical Society Transactions (2002), 30(6), 1010-1014
CODEN: BCSTB5; ISSN: 0300-5127
PB Portland Press Ltd.
DT Journal; General Review
LA English
RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2003 ACS
AN 2001:886449 CAPLUS
DN 136:36328
TI **Alpha 2 macroglobulin receptors as a heat shock protein** receptor and uses thereof
IN Srivastava, Pramod K.
PA University of Connecticut Health Center, USA
SO PCT Int. Appl., 236 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001092474	A1	20011206	WO 2001-US18041	20010604
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI US 2000-209095P	P	20000602		
US 2000-625137	A	20000725		
US 2000-668724	A	20000922		
US 2000-750972	A	20001228		

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2003 ACS
AN 2001:851435 CAPLUS
DN 136:1570
TI Compositions, kits, and methods for identification and modulation of T helper-1 and T helper-2 cells and diseases associated therewith
IN Hanrahan, Catherine F.; Feldman, Marc; Trepicchio, William L.
PA Genetics Institute, Inc., USA; Kennedy Institute of Rheumatology
SO PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001088199	A2	20011122	WO 2001-US16022	20010517
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002039734	A1	20020404	US 2001-860655	20010517
PRAI US 2000-205204P	P	20000518		

L6 ANSWER 14 OF 19 USPATFULL
AN 2001:67794 USPATFULL
TI Human respiratory syncytial virus peptides with antifusogenic and antiviral activities
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6228983 B1 20010508
AI US 1995-485264 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995
Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994
Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994
Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 32166

INCL INCLM: 530/300.000
INCLS: 530/324.000; 530/325.000; 530/326.000; 424/211.100; 424/186.100
NCL NCLM: 530/300.000
NCLS: 424/186.100; 424/211.100; 530/324.000; 530/325.000; 530/326.000
IC [7]
ICM: A61K038-00
EXF 530/350; 530/324-329; 530/300; 424/211.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2003 ACS
AN 2000:908423 CAPLUS
DN 134:203644
TI Morphologic analysis correlates with gene expression changes in cultured F344 rat mesothelial cells
AU Crosby, L. M.; Hyder, K. S.; DeAngelo, A. B.; Kepler, T. B.; Gaskill, B.; Benavides, G. R.; Yoon, L.; Morgan, K. T.
CS University of North Carolina at Chapel Hill, Curriculum in Toxicology/U.S. EPA NHEERL, Research Triangle Park, NC, 27711, USA
SO Toxicology and Applied Pharmacology (2000), 169(3), 205-221
CODEN: TXAPA9; ISSN: 0041-008X
PB Academic Press
DT Journal
LA English
RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 19 MEDLINE DUPLICATE 1
AN 2001216038 MEDLINE
DN 21205395 PubMed ID: 11248808
TI CD91: a receptor for **heat shock protein** gp96.
CM Comment in: Nat Immunol. 2000 Aug;1(2):100-1
AU Binder R J; Han D K; Srivastava P K
CS Center for Immunotherapy of Cancer and Infectious Diseases, University of Connecticut School of Medicine, Farmington, CT 06030, USA.
NC CA64394 (NCI)
CA84479 (NCI)
SO Nat Immunol, (2000 Aug) 1 (2) 151-5.
Journal code: 100941354. ISSN: 1529-2908.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200105
ED Entered STN: 20010521
Last Updated on STN: 20010521
Entered Medline: 20010517

L6 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2003 ACS
AN 1999:795994 CAPLUS
DN 132:31744
TI Gene probes used for genetic profiling in healthcare screening and planning
IN Roberts, Gareth Wyn
PA Genostic Pharma Ltd., UK
SO PCT Int. Appl., 745 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9964627	A2	19991216	WO 1999-GB1780	19990604
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI GB 1998-12099	A	19980606		
GB 1998-13291	A	19980620		
GB 1998-13611	A	19980624		
GB 1998-13835	A	19980627		
GB 1998-14110	A	19980701		
GB 1998-14580	A	19980707		
GB 1998-15438	A	19980716		
GB 1998-15574	A	19980718		
GB 1998-15576	A	19980718		
GB 1998-16085	A	19980724		
GB 1998-16086	A	19980724		
GB 1998-16921	A	19980805		
GB 1998-17097	A	19980807		
GB 1998-17200	A	19980808		
GB 1998-17632	A	19980814		
GB 1998-17943	A	19980819		

L6 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2003 ACS
AN 1999:795993 CAPLUS
DN 132:31743
TI Gene probes used for genetic profiling in healthcare screening and planning
IN Roberts, Gareth Wyn
PA Genostic Pharma Limited, UK
SO PCT Int. Appl., 149 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9964626	A2	19991216	WO 1999-GB1779	19990604
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9941586	A1	19991230	AU 1999-41586	19990604
AU 9941587	A1	19991230	AU 1999-41587	19990604
GB 2339200	A1	20000119	GB 1999-12914	19990604
GB 2339200	B2	20010912		
EP 1084273	A1	20010321	EP 1999-925207	19990604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI GB 1998-12098	A	19980606		
GB 1998-28289	A	19981223		
GB 1998-16086	A	19980724		
GB 1998-16921	A	19980805		
GB 1998-17097	A	19980807		
GB 1998-17200	A	19980808		
GB 1998-17632	A	19980814		
GB 1998-17943	A	19980819		
WO 1999-GB1779	W	19990604		

L6 ANSWER 19 OF 19 USPATFULL
AN 1999:141305 USPATFULL
TI Adjuvant for transcutaneous immunization
IN Glenn, Gregory M., Bethesda, MD, United States
Alving, Carl R., Bethesda, MD, United States
PA The United States of America as represented by the U.S. Army Medical Research & Material Command, Washington, DC, United States (U.S. government)
PI US 5980898 19991109
AI US 1997-896085 19970717 (8)
RLI Continuation-in-part of Ser. No. US 1996-749164, filed on 14 Nov 1996
DT Utility
FS Granted
LN.CNT 1988
INCL INCLM: 424/184.100
INCLS: 424/449.000; 424/450.000; 424/236.000; 424/240.100; 424/241.100; 424/275.100; 530/363.000; 530/403.000
NCL NCLM: 424/184.100
NCLS: 424/085.100; 424/240.100; 424/241.100; 424/275.100; 424/449.000; 424/450.000; 530/363.000; 530/403.000
IC [6]
ICM: A61K039-00
ICS: C07K014-005; C07K014-195
EXF 424/449; 424/450; 424/184.1; 424/236; 424/240.1; 424/241.1; 424/275.1; 530/363; 530/403
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s agonist? and l1
L7 1585 AGONIST? AND L1

=> s l7 and l2
L8 4 L7 AND L2

=> d 1-4

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS
AN 2001:886449 CAPLUS
DN 136:36328
TI **Alpha 2 macroglobulin receptors** as a **heat shock protein** receptor and uses thereof
IN Srivastava, Pramod K.
PA University of Connecticut Health Center, USA
SO PCT Int. Appl., 236 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001092474	A1	20011206	WO 2001-US18041	20010604
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI US 2000-209095P	P	20000602		
US 2000-625137	A	20000725		
US 2000-668724	A	20000922		
US 2000-750972	A	20001228		

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS
AN 2001:319729 CAPLUS
DN 134:320865
TI Regulation of apoB for diagnosis, treatment and drug screening for cardiovascular and metabolic disorders or syndromes
IN Fisher, Edward A.; Williams, Kevin Jon
PA Thomas Jefferson University, USA
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001030354	A1	20010503	WO 2000-US29699	20001026
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI US 1999-161537P	P	19991026		

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 4 USPATFULL
AN 2002:315069 USPATFULL
TI Compositions and methods for treatment of neoplastic disease
IN Terman, David S., Pebble Beach, CA, UNITED STATES
PI US 2002177551 A1 20021128
AI US 2001-870759 A1 20010530 (9)
PRAI US 2000-208128P 20000531 (60)
DT Utility
FS APPLICATION
LN.CNT 17323
INCL INCLM: 514/012.000
INCLS: 435/325.000; 530/350.000
NCL NCLM: 514/012.000
NCLS: 435/325.000; 530/350.000
IC [7]
ICM: A61K038-17
ICS: C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 4 USPATFULL
AN 2002:259381 USPATFULL
TI Materials and methods relating to lipid metabolism
IN Ballinger, Dennis G., Menlo Park, CA, UNITED STATES
Loeb, Deborah, San Jose, CA, UNITED STATES
Montgomery, Julie R., Santa Cruz, CA, UNITED STATES
Tang, Y. Tom, San Jose, CA, UNITED STATES
Zhou, Ping, Cupertino, CA, UNITED STATES
Goodrich, Ryle, San Jose, CA, UNITED STATES
Liu, Chenghua, San Jose, CA, UNITED STATES
Asundi, Vinod, Foster City, CA, UNITED STATES
Zhao, Qing A., San Jose, CA, UNITED STATES
Wehrman, Tom, Stanford, CA, UNITED STATES
Drmanac, Radoje T., Palo Alto, CA, UNITED STATES
Ren, Peiyan, Cupertino, CA, UNITED STATES
Qian, Xiaohong B., San Jose, CA, UNITED STATES
Wang, Dunrui, Poway, CA, UNITED STATES
PI US 2002142953 A1 20021003
AI US 2001-835996 A1 20010416 (9)
RLI Continuation-in-part of Ser. No. US 2000-714936, filed on 17 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-667298, filed on 22 Sep

2000, PENDING Continuation-in-part of Ser. No. US 2000-631451, filed on 3 Aug 2000, PENDING Continuation-in-part of Ser. No. US 2000-598042, filed on 20 Jun 2000, PENDING
PRAI US 2000-197137P 20000414 (60)
DT Utility
FS APPLICATION
LN.CNT 9120
INCL INCLM: 514/012.000
INCLS: 435/069.100; 435/325.000; 435/320.100; 530/359.000; 435/196.000; 536/023.200
NCL NCLM: 514/012.000
NCLS: 435/069.100; 435/325.000; 435/320.100; 530/359.000; 435/196.000; 536/023.200
IC [7]
ICM: A61K038-17
ICS: C07H021-04; C12N009-16; C12P021-02; C12N005-06; C07K014-775
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 15:25:49 ON 20 FEB 2003)

FILE 'MEDLINE, CANCERLIT, BIOSIS, CONFSCI, EMBASE, CAPLUS, USPATFULL' ENTERED AT 15:26:27 ON 20 FEB 2003
L1 72563 S HEAT (A) SHOCK (A) PROTEIN
L2 40 S L1 AND ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L3 33 DUP REM L2 (7 DUPLICATES REMOVED)
L4 12721 S L1 AND ANTIBOD?
L5 21 S L4 AND L2
L6 19 DUP REM L5 (2 DUPLICATES REMOVED)
L7 1585 S AGONIST? AND L1
L8 4 S L7 AND L2

=> s l1 and peptide?
L9 8637 L1 AND PEPTIDE?

=> s l9 and l2
L10 27 L9 AND L2

=> dup rem l10
PROCESSING COMPLETED FOR L10
L11 24 DUP REM L10 (3 DUPLICATES REMOVED)

=> s l11 and modulate?
L12 11 L11 AND MODULATE?

=> d 1-11

L12 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2003 ACS
AN 2001:886449 CAPLUS
DN 136:36328
TI **Alpha 2 macroglobulin receptors** as **a heat shock protein** receptor and uses thereof
IN Srivastava, Pramod K.
PA University of Connecticut Health Center, USA
SO PCT Int. Appl., 236 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001092474	A1	20011206	WO 2001-US18041	20010604
W: AU, CA, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR
PRAI US 2000-209095P P 20000602
US 2000-625137 A 20000725
US 2000-668724 A 20000922
US 2000-750972 A 20001228
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 11 USPATFULL
AN 2003:40533 USPATFULL
TI Methods for the inhibition of epstein-barr virus transmission employing anti-viral peptides capable of abrogating viral fusion and transmission
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6518013 B1 20030211
AI US 1995-485546 19950607 (8)
RLI Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS GRANTED
LN.CNT 24700
INCL INCLM: 435/005.000
INCLS: 424/230.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
NCL NCLM: 435/005.000
NCLS: 424/230.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
IC [7]
ICM: C12Q001-70
EXF 435/5; 530/300; 530/324-329; 530/350; 424/230.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 3 OF 11 USPATFULL
AN 2002:315069 USPATFULL
TI Compositions and methods for treatment of neoplastic disease
IN Terman, David S., Pebble Beach, CA, UNITED STATES
PI US 2002177551 A1 20021128
AI US 2001-870759 A1 20010530 (9)
PRAI US 2000-208128P 20000531 (60)
DT Utility
FS APPLICATION
LN.CNT 17323
INCL INCLM: 514/012.000
INCLS: 435/325.000; 530/350.000
NCL NCLM: 514/012.000
NCLS: 435/325.000; 530/350.000
IC [7]
ICM: A61K038-17
ICS: C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 4 OF 11 USPATFULL
AN 2002:297296 USPATFULL
TI Methods for inhibition of membrane fusion-associated events, including respiratory syncytial virus transmission
IN Bolognesi, Dani Paul, Durham, NC, United States
Matthews, Thomas James, Durham, NC, United States
Wild, Carl T., Durham, NC, United States
Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States

Langlois, Alphonse J., Durham, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6479055 B1 20021112
AI US 1995-470896 19950606 (8)
RLI Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS GRANTED
LN.CNT 26553
INCL INCLM: 424/211.100
INCLS: 424/186.100; 530/324.000
NCL NCLM: 424/211.100
NCLS: 424/186.100; 530/324.000
IC [7]
ICM: A61K039-145
EXF 435/5; 435/240.2; 424/184.1-189.1; 424/204.1-211.1; 424/225.1; 424/227.1; 424/230.1; 514/1; 514/2; 530/324; 530/350; 530/826
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 5 OF 11 USPATFULL
AN 2002:259381 USPATFULL
TI Materials and methods relating to lipid metabolism
IN Ballinger, Dennis G., Menlo Park, CA, UNITED STATES
Loeb, Deborah, San Jose, CA, UNITED STATES
Montgomery, Julie R., Santa Cruz, CA, UNITED STATES
Tang, Y. Tom, San Jose, CA, UNITED STATES
Zhou, Ping, Cupertino, CA, UNITED STATES
Goodrich, Ryle, San Jose, CA, UNITED STATES
Liu, Chenghua, San Jose, CA, UNITED STATES
Asundi, Vinod, Foster City, CA, UNITED STATES
Zhao, Qing A., San Jose, CA, UNITED STATES
Wehrman, Tom, Stanford, CA, UNITED STATES
Drmanac, Radoje T., Palo Alto, CA, UNITED STATES
Ren, Feiyan, Cupertino, CA, UNITED STATES
Qian, Xiaohong B., San Jose, CA, UNITED STATES
Wang, Dunrui, Poway, CA, UNITED STATES
PI US 2002142953 A1 20021003
AI US 2001-835996 A1 20010416 (9)
RLI Continuation-in-part of Ser. No. US 2000-714936, filed on 17 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-667298, filed on 22 Sep 2000, PENDING Continuation-in-part of Ser. No. US 2000-631451, filed on 3 Aug 2000, PENDING Continuation-in-part of Ser. No. US 2000-598042, filed on 20 Jun 2000, PENDING
PRAI US 2000-197137P 20000414 (60)
DT Utility
FS APPLICATION
LN.CNT 9120
INCL INCLM: 514/012.000
INCLS: 435/069.100; 435/325.000; 435/320.100; 530/359.000; 435/196.000; 536/023.200
NCL NCLM: 514/012.000
NCLS: 435/069.100; 435/325.000; 435/320.100; 530/359.000; 435/196.000; 536/023.200
IC [7]
ICM: A61K038-17
ICS: C07H021-04; C12N009-16; C12P021-02; C12N005-06; C07K014-775
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 6 OF 11 USPATFULL
AN 2002:206116 USPATFULL
TI Toxicant-induced differential gene expression
IN Reidhaar-Olson, John F., Montclair, NJ, UNITED STATES
PI US 2002110808 A1 20020815
AI US 2000-489220 A1 20000121 (9)
DT Utility
FS APPLICATION
LN.CNT 5161
INCL INCLM: 435/006.000
INCLS: 435/091.200; 536/023.100
NCL NCLM: 435/006.000
NCLS: 435/091.200; 536/023.100
IC [7]
ICM: C12Q001-68
ICS: C07H021-02; C07H021-04; C12P019-34
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 7 OF 11 USPATFULL
AN 2002:164658 USPATFULL
TI Immunotherapeutic methods for extracorporeal modulation of CD36 and its ligands
IN Srivastava, Pramod K., Avon, CT, UNITED STATES
PI US 2002086276 A1 20020704
AI US 2000-750973 A1 20001228 (9)
DT Utility
FS APPLICATION
LN.CNT 1813
INCL INCLM: 435/002.000
INCLS: 424/140.100
NCL NCLM: 435/002.000
NCLS: 424/140.100
IC [7]
ICM: A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 8 OF 11 USPATFULL
AN 2002:136555 USPATFULL
TI Methods of modulating an immune response to antigen, and cells for use in the method
IN Segal, Andrew H., Boston, MA, United States
PA Whitehead Institute for Biomedical Research, Cambridge, MA, United States (U.S. corporation)
PI US 6403080 B1 20020611
AI US 1999-339523 19990624 (9)
RLI Division of Ser. No. US 1997-826259, filed on 27 Mar 1997, now patented, Pat. No. US 5951976
PRAI US 1996-14364P 19960328 (60)
DT Utility
FS GRANTED
LN.CNT 2153
INCL INCLM: 424/093.100
INCLS: 424/093.200; 424/093.210; 424/093.700; 424/093.710; 424/136.100; 435/325.000; 514/002.000; 514/012.000; 530/387.300
NCL NCLM: 424/093.100
NCLS: 424/093.200; 424/093.210; 424/093.700; 424/093.710; 424/136.100; 435/325.000; 514/002.000; 514/012.000; 530/387.300
IC [7]
ICM: A01N063-00
ICS: A61K039-395; A61K038-00; C12P021-08
EXF 424/93.21; 424/93.7; 424/93.1; 424/93.2; 424/93.71; 424/136.1; 435/325; 514/12; 514/21; 530/387.3
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 9 OF 11 USPATFULL
AN 2002:66639 USPATFULL
TI Compositions comprising **heat shock proteins** or alpha(2) macroglobulin, antigenic molecules and saponins, and methods of use thereof
IN Armen, Garo H., Manhasset, NY, UNITED STATES

PI US 2002037290 A1 20020328
AI US 2001-909778 A1 20010720 (9)
PRAI US 2000-223133P 20000807 (60)
DT Utility
FS APPLICATION
LN.CNT 4136
INCL INCLM: 424/178.100
INCLS: 514/012.000; 514/026.000
NCL NCLM: 424/178.100
NCLS: 514/012.000; 514/026.000
IC [7]
ICM: A61K039-395
ICS: A61K038-17
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 10 OF 11 USPATFULL
AN 2001:67794 USPATFULL
TI Human respiratory syncytial virus peptides with antifusogenic and antiviral activities
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6228983 B1 20010508
AI US 1995-485264 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995
Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994
Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994
Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 32166
INCL INCLM: 530/300.000
INCLS: 530/324.000; 530/325.000; 530/326.000; 424/211.100; 424/186.100
NCL NCLM: 530/300.000
NCLS: 424/186.100; 424/211.100; 530/324.000; 530/325.000; 530/326.000
IC [7]
ICM: A61K038-00
EXF 530/350; 530/324-329; 530/300; 424/211.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 11 OF 11 USPATFULL
AN 1999:141305 USPATFULL
TI Adjuvant for transcutaneous immunization
IN Glenn, Gregory M., Bethesda, MD, United States
Alving, Carl R., Bethesda, MD, United States
PA The United States of America as represented by the U.S. Army Medical Research & Material Command, Washington, DC, United States (U.S. government)
PI US 5980898 19991109
AI US 1997-896085 19970717 (8)
RLI Continuation-in-part of Ser. No. US 1996-749164, filed on 14 Nov 1996
DT Utility
FS Granted
LN.CNT 1988
INCL INCLM: 424/184.100
INCLS: 424/449.000; 424/450.000; 424/236.000; 424/240.100; 424/241.100; 424/275.100; 530/363.000; 530/403.000
NCL NCLM: 424/184.100
NCLS: 424/085.100; 424/240.100; 424/241.100; 424/275.100; 424/449.000; 424/450.000; 530/363.000; 530/403.000
IC [6]
ICM: A61K039-00
ICS: C07K014-005; C07K014-195
EXF 424/449; 424/450; 424/184.1; 424/236; 424/240.1; 424/241.1; 424/275.1; 530/363; 530/403
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d kwic 11

L12 ANSWER 11 OF 11 USPATFULL
SUMM . . . "Large molecules normally do not get across the intact mammalian skin. It is thus impossible to immunize epicutaneously with simple **peptide** or protein solutions." They concluded, "The dermally applied liposomal or mixed micellar immunogens are biologically as inactive as simple protein. . .
DETD Antigen obtained through recombinant means or **peptide** synthesis, as well as antigen of the invention obtained from natural sources or extracts, may be purified by means of. . .
DETD . . . granulocyte-monocyte-colony stimulating factor) (reviewed in Nohria and Rubin, 1994), a muramyl dipeptide derivative (e.g., murabutide, threonyl-MDP or muramyl tripeptide), a **heat shock protein** or a derivative, a derivative of Leishmania major LeIF (Skeiky et al., 1995), cholera toxin or cholera toxin B, a. . .
DETD Optionally, an activator of Langerhans cells may be used as an adjuvant. Examples of such activators include: inducers of **heat shock protein**; contact sensitizers (e.g., trinitrochlorobenzene, dinitrofluorobenzene, nitrogen mustard, pentadecylcatechol); toxins (e.g, Shiga toxin, Staph enterotoxin B); lipopolysaccharides, lipid A, or derivatives. . .
DETD . . . immune response to cholera toxin (CT) in rabbits and to a synthetic protein consisting of a malaria oligopeptide containing four tetra-**peptides** (Asn-Ala-Asn-Pro) conjugated to BSA. The authors found that the immune response to cholera toxin or to the synthetic malaria protein. . .
DETD . . . the groups could be detected. ETA differs from CT and LT in that ETA is a single 613 amino acid **peptide** with A and B domains on the same **peptide** and binds to an entirely different receptor, the .**alpha.2-macroglobulin receptor**/low density lipoprotein receptor-related protein (Kounnas et al., 1992). Despite the dissimilarities between ETA and CT in size, structure, and binding. . .
DETD Bodanszky, M. (1993) **Peptide** Chemistry, Springer-Verlag, New York.
DETD . . . L. F., et al. (1992b) Safety, immunogenicity, and efficacy of a Plasmodium falciparum vaccine comprising a circumsporozoite protein repeat region **peptide** conjugated to Pseudomonas aeruginosa toxin A. Infect. Immun., 60:1834-1839.
DETD Pessi, A., et al. (1991) Lack of H-2 restriction of the Plasmodium falciparum (NANP) sequence as multiple antigen **peptide**, Eur. J. Immunol., 24:2273-2276.
DETD Porgador, A., et al. (1997) Intranasal immunization with CTL epitope **peptides** from HIV-1 or ovalbumin and the mucosal adjuvant cholera toxin induces **peptide**-specific CTLs and protection against tumor development in vivo. J. Immunol., 158:834-841.
DETD Schwarzenberger, K., and Udey, M. C. (1996) Contact allergens and epidermal proinflammatory cytokines **modulate** Langerhans cell E-cadherin expression in situ. J. Invest. Dermatol., 106:553-558.
DETD Tam, J. P. (1988) Synthetic **peptide** vaccine design: Synthesis and properties of a high-density multiple antigenic **peptide** system. Proc. Natl. Acad. Sci. U.S.A., 85:5409-5413.
DETD Vandenbark, A. A., et al. (1996) Treatment of multiple sclerosis with T-cell receptor **peptides**: Results of a double-blind pilot trial. Nature Medicine, 2:1109-1115.
DETD Wang, R., et al. (1995) Induction of protective polyclonal antibodies by immunization with a Plasmodium yoelii circumsporozoite protein multiple antigen **peptide** vaccine. J. Immunol., 154:2784-2793.

DETD Wisdom, G. B. (1994) **Peptide** Antigens, IRL Press, Oxford.

=> d kwic 9

L12 ANSWER 9 OF 11 USPATFULL

TI Compositions comprising **heat shock proteins** . or alpha(2) macroglobulin, antigenic molecules and saponins, and methods of use thereof

AB . . . diseases, and primary and metastatic neoplastic diseases. In the practice of the invention, the compositions are employed comprising: (a) a **heat shock protein** (hsp) or an alpha(2)macroglobulin (.alpha.2M); (b) a saponin; and, optionally, (c) an antigenic molecule. The antigenic molecule displays the antigenicity. . .

SUMM . . . diseases (i.e., cancer), neurodegenerative or amyloid diseases, and autoimmune diseases, and methods of formulating the compositions. The compositions comprise a **heat shock protein** (hsp) or alpha(2)macroglobulin (.alpha.2M) and a saponin when used for the treatment and prevention of an autoimmune disease. The compositions. . .

SUMM . . . Biology of the Cell, p. 1228). Both cytotoxic T cells and helper T cells recognize antigen in the form of **peptide** fragments that are generated by the degradation of foreign protein antigens inside the target cell, and both, therefore, depend on major histocompatibility complex (MHC) molecules, which bind these **peptide** fragments, carry them to the cell surface, and present them there to the T cells (Alberts et al., Id.). MHC. . .

SUMM . . . homology between them, and showed that gp96 and p84/86 were, respectively, the endoplasmic reticular and cytosolic counterparts of the same **heat shock proteins** (Srivastava et al., 1988, Immunogenetics 28:205-207; Srivastava et al., 1991, Curr. Top. Microbiol. Immunol. 167:109-123). Further, hsp70 was shown to. . . elicit immunity to the tumor from which it was isolated but not to antigenically distinct tumors. However, hsp70 depleted of **peptides** was found to lose its immunogenic activity (Udono and Srivastava, 1993, J. Exp. Med. 178:1391-1396). These observations suggested that the **heat shock proteins** are not immunogenic per se, but instead form noncovalent complexes with antigenic **peptides**, and the complexes elicit specific immunity to the antigenic **peptides** (Srivastava, 1993, Adv. Cancer Res. 62:153-177; Udono et al., 1994, J. Immunol., 152:5398-5403; Suto et al., 1995, Science, 269:1585-1588).

SUMM [0012] Noncovalent complexes of hsps and **peptide**, purified from cancer cells, can be used for the treatment and prevention of cancer and have been described in PCT. . . 17, 1998, respectively, each of which is incorporated by reference herein in its entirety). The isolation and purification of stress protein-**peptide** complexes has been described, for example, from pathogen-infected cells, and can be used for the treatment and prevention of infection. . . intracellular pathogens, including bacteria, protozoa, fungi and parasites (see e.g., PCT Publication WO 95/24923, dated Sep. 21, 1995). Immunogenic stress protein-**peptide** complexes can also be prepared by in vitro complexing of stress protein and antigenic **peptides**, and the uses of such complexes for the treatment and prevention of cancer and infectious diseases has been described in. . . publication WO 97/10000, dated Mar. 20, 1997 and U.S. Pat. No. 6,030,618 issued Feb. 29, 2000. The use of stress protein-**peptide** complexes for sensitizing antigen presenting cells in vitro for use in adoptive immunotherapy is described in PCT publication WO 97/10002,. . .

SUMM [0013] 2.3. **Heat Shock Proteins** and Their Roles in Antigen Presentation

SUMM [0014] 2.3.1. **Heat Shock Proteins**

SUMM [0015] **Heat shock proteins** (hsps), also referred to as stress proteins, were first identified as proteins synthesized by cells in response to heat shock.. . .

SUMM [0016] **Heat shock proteins** are among the most highly conserved proteins in existence. For example, DnaK, the hsp70 from E. coli, has about 50%. . .

SUMM . . . proteins in normal cells (Lindquist et al., 1988, Ann. Rev. Genetics 22:631-677). The hsps are capable of binding proteins or **peptides**, and of releasing the bound proteins or **peptides** in the presence of adenosine triphosphate (ATP) or low pH.

SUMM . . . present antigens on the cell surface of antigen-presenting cells. Cytotoxic T lymphocytes (CTLs) then recognize MHC molecules and their associated **peptides** and kill the target cell. Antigens are processed by two distinct antigen processing routes depending upon whether their origin is. . .

SUMM [0020] The **heat shock protein** gp96 chaperones a wide array of **peptides**, depending upon the source from which gp96 is isolated (for review, see Srivastava et al., 1998, Immunity 8: 657-665). Tumor-derived gp96 carries tumor-antigenic **peptides** (Ishii et al., 1999, J. Immunology 162:1303-1309), gp96 preparations from virus-infected cells carry viral epitopes (Suto and Srivastava, 1995, Science. . . (Arnold et al., 1995, J. Exp. Med.182:885-889; Breloer et al., 1998, Eur. J. Immunol. 28:1016-1021). The association of gp96 with **peptides** occurs in vivo (Menoret and Srivastava, 1999, Biochem. Biophys. Research Commun. 262:813-818). Gp96-**peptide** complexes, whether isolated from cells (Tamura et al., 1997, Science 278:117-120), or reconstituted in vitro (Blachere et al., 1997, J.. . . 186:1183-1406) are excellent immunogens and have been used extensively to elicit CD8+ T cell responses specific for the gp96-chaperoned antigenic **peptides**.

SUMM [0021] The capacity of gp96-**peptide** complexes to elicit an immune response is dependent upon the transfer of the **peptide** to MHC class I molecules of antigen-presenting cells (Suto and Srivastava, 1995, supra). Endogenously synthesized antigens chaperoned by gp96 in. . . cells (or MHC I-restricted CTLs) in vivo; this priming of CD8+ T cells requires macrophages. However, the process whereby exogenously-introduced gp96-**peptide** complexes elicit the antigen-specific CD8+ T cell response is not completely understood since there is no established pathway for the translocation of extracellular antigens into the class I presentation machinery. Yet antigenic **peptides** of extracellular origin associated with hsps are somehow salvaged by macrophages, channeled into the endogenous pathway, and presented by MHC. . .

SUMM [0022] Several models have been proposed to explain the delivery of extracellular **peptides** for antigen presentation. One proposal, known as the "direct transfer" model, suggests that hsp-chaperoned **peptides** are transferred to MHC I molecules on the cell surface of macrophages for presentation to CD8+ T lymphocytes. Another suggestion. . . al., 1994, Immunogenetics 39:93-98). Others have suggested that a novel intracellular trafficking pathway may be involved for the transport of **peptides** from the extracellular medium into the lumen of the ER (Day et al., 1997, Proc. Natl. Acad. Sci. 94:8064-8069; Nicchitta,. . . the cytosol where it would enter the normal class I pathway; and/or (b) digest ingested material in lysosomes and regurgitate **peptides** for loading on the surface to class I molecules (Bevan, 1995, J. Exp. Med. 182:639-41).

SUMM [0023] Still others have proposed a receptor-mediated pathway for the delivery of extracellular **peptides** to the cell surface of APCs for antigen presentation. In view of the extremely small quantity of gp96-chaperoned antigenic **peptides** required for immunization (Blachere et al., 1997, supra), and the strict dependence of immunogenicity of gp96-**peptide** complexes on functional antigen presenting cells (APCs) (Udono et al., 1994, Proc. Natl. Acad. Sci. U.S.A. 91:3077-3081), APCs had been. . . receptor is thought to be used in the uptake of gp96 (Ciupitu et al., 1998, J. Exp. Med.,

187:685-691). The **alpha(2)macroglobulin receptor**, also known as CD91, has proven to be a more universal receptor for hsps, with binding to gp96, hsp90, hsp70,. . .

SUMM . . . surfaces of other cells, the APCs. APCs can trap lymph- and blood-borne antigens and, after internalization and degradation, present antigenic **peptide** fragments, bound to cell-surface molecules of the major histocompatibility complex (MHC), to T cells. APCs may then activate T cells. . .

SUMM [0030] Alpha(2)macroglobulin promiscuously binds to proteins and **peptides** with nucleophilic amino acid side chains in a covalent manner (Chu et al., 1994, Ann. N.Y. Acad. Sci. 737:291-307) and. . .

SUMM . . . filed Jun. 2, 2000, which is incorporated by reference herein in its entirety). .alpha.2M directly competes for the binding of **heat shock protein** gp96 to the .alpha.2MR, indicating that .alpha.2M and hsps may bind to a common recognition site on the .alpha.2MR (Binder et al., 2000, Nature Immunology 1(2), 151-154). Additionally, .alpha.2M-antigenic **peptide** complexes prepared in vitro can be administered to animals to generate a cytotoxic T cell response specific to the antigenic. . . Immunol. 166:4968-72). Thus, because hsps and .alpha.2M have a number of common functional attributes, such as the ability to bind **peptide**, the recognition and uptake by the .alpha.2MR, and the stimulation of a cytotoxic T cell response, .alpha.2M can be used. . .

SUMM . . . (White et al., 1991, "A purified saponin acts as an adjuvant for a T-independent antigen," in: Immunobiology of Proteins and **Peptides**, Vol. VI (Atassi ed.), Plenum Press, New York, pp. 207-210). The immunogenicity of the vaccine was further increased by conjugating. . .

SUMM [0044] The ability of adjuvants to **modulate** the isotype distribution and IgG subclass distribution of antibody response to an antigen through the promotion of Ig subclass switching. . .

SUMM . . . substantially lack antigenic molecules, are particularly useful in treating an autoimmune disorder. "Antigenic molecule" as used herein refers to a **peptide** or other molecule with which hsps are endogenously associated in vivo (e.g., in precancerous or cancerous tissue), as well as. . . hsps are not complexed in vivo) or antigenic/immunogenic fragments and derivatives thereof. Such exogenous antigens and fragments and derivatives (both **peptide** and non-**peptide**) thereof for use in complexing with hsps or .alpha.2M, can be selected from among those known in the art, as. . . cancer cell, a cell infected with an infectious organism or a cell or structure, e.g., extracellular deposits or plaques comprising **peptide** and/or protein fibrils, that displays the hallmarks of a neurodegenerative or amyloid disease. In certain embodiments, the outcome of eliciting. . .

SUMM . . . the saponin, and the antigenic molecule are combined simultaneously. In another embodiment, purified hsp or .alpha.2M is stripped of bound **peptide** and antigenic molecule, or antigenic molecule previously covalently linked to saponin, is bound to said hsp or .alpha.2M in vitro.. . .

SUMM [0067] In accordance with the methods described herein, immunogenic or antigenic **peptides** that are endogenously complexed to hsps or .alpha.2M can be used as specific antigenic molecules. For example, such **peptides** may be prepared that stimulate cytotoxic T cell responses against different tumor antigens (e.g., tyrosinase, gp100, melan-A, gp75, mucins, etc.);. . . or a fragment thereof, or a prion protein, and their antigenic derivatives. In the embodiment wherein the antigenic molecules are **peptides** noncovalently complexed to hsps or .alpha.2M in vivo, the complexes can be isolated from cells, or alternatively, produced in vitro. . .

SUMM . . . use specific antigenic molecules by complexing to hsps in vitro, hsps can be purified for such use from the endogenous hsp-**peptide** complexes in the presence of ATP or low pH (or chemically synthesized or recombinantly produced). The protocols described herein may be used to isolate hsp-**peptide** complexes, or the hsps alone, from any eukaryotic cells for example, tissues, isolated cells, or immortalized eukaryote cell lines infected. . .

SUMM . . . using recombinant methods known in the art (see Suzue et al., 1997, Proc. Natl. Acad. Sci. U.S.A. 94: 13146-51). .alpha.2M-antigenic **peptide** fusions are then expressed and isolated. By specifically designing the antigenic **peptide** portion of the molecule, such fusion proteins can be used to elicit an immune response and in immunotherapy against target. . .

SUMM . . . of the above embodiments, the first and/or second antigen, when present in the composition, is a synthetic or recombinantly generated **peptide**.

SUMM . . . cell, can be used in the present methods for producing .alpha.2M polypeptide-antigenic molecule complexes. The cancer cells provide the antigenic **peptides** which become associated covalently or noncovalently with the expressed .alpha.2M polypeptide. .alpha.2M polypeptide-antigenic molecule complexes are then purified from the. . .

SUMM . . . vitro. Immunogenic .alpha.2M polypeptide-antigenic molecule complexes can be generated in vitro by coupling of an .alpha.2M polypeptide with an antigenic **peptide**. Procedures for forming such .alpha.2M-antigenic molecule complexes and methods for isolating antigenic **peptides** are described below.

SUMM . . . the nucleophilic activation, employing heat (Gr.o slashed.n and Pizzo, 1998, Biochemistry, 37: 6009-6014). Such conditions that allow fortuitous trapping of **peptides** by .alpha.2M are employed to prepare the .alpha.2M -antigenic complexes for use in the invention. Methods for such covalent coupling. . .

SUMM . . . 2 hrs at 25.degree. C. The preparations can be centrifuged through a Centricon 10 assembly (Millipore) to remove any unbound **peptide**. Alternatively, free antigenic molecule may be removed by passage over a gel permeation column. The association of the **peptides** with the .alpha.2M polypeptide can be assayed by SDS-PAGE. This is the preferred method for in vitro complexing of antigenic molecules isolated from MHC-antigenic molecule complexes, or **peptides** disassociated from endogenous .alpha.2M-antigenic molecule complexes.

SUMM [0111] 4.2.2. Preparation and Purification of hsp70-**peptide** Complexes

SUMM [0112] The purification of hsp70-**peptide** complexes has been described previously, see, for example, Udono et al., 1993, J. Exp. Med. 178:1391-1396. A procedure that may. . .

SUMM [0115] Fractions strongly immunoreactive with the anti-hsp70 antibody are pooled and the hsp70-**peptide** complexes precipitated with ammonium sulfate; specifically with a 50%-70% ammonium sulfate cut. The resulting precipitate is then harvested by centrifugation. . .

SUMM [0116] The hsp70-**peptide** complex can be purified to apparent homogeneity using this method. Typically 1 mg of hsp70-**peptide** complex can be purified from 1 g of cells/tissue.

SUMM [0117] An improved method for purification of hsp70-**peptide** complexes comprises contacting cellular proteins with ADP or a nonhydrolyzable analog of ATP affixed to a solid substrate, such that. . . ADP affixed to a solid substratum (e.g., ADP-agarose). The resulting hsp70 preparations are higher in purity and devoid of contaminating **peptides**. The hsp70 yields are also increased significantly by about more than 10 fold. Alternatively, chromatography with nonhydrolyzable analogs of ATP, instead of ADP, can be used for purification of hsp70-**peptide** complexes. By way of example but not limitation, purification of hsp70-**peptide** complexes by ADP-agarose chromatography can be carried out as follows:

SUMM . . . ADP-agarose column. The column is washed in buffer and is eluted with 5 column volumes of 3 mM ADP. The hsp70-**peptide** complexes elute in fractions 2 through 10 of the total 15 fractions which elute. The eluted fractions are analyzed by SDS-PAGE. The hsp70-**peptide** complexes can be purified to apparent homogeneity using this procedure.

SUMM [0119] 4.2.3. Preparation and Purification of hsp90-**peptide** Complexes

SUMM [0123] The eluted fractions are fractionated by SDS-PAGE and fractions containing the hsp90-**peptide** complexes identified by immunoblotting using an anti-hsp90 antibody such as 3G3 (Affinity Bioreagents). hsp90-**peptide** complexes can be purified to apparent homogeneity using this procedure. Typically, 150-200 .mu.g of hsp90-**peptide** complex can be purified from 1 g of cells/tissue.

SUMM [0124] 4.2.4. Preparation and Purification of gp96-**peptide** Complexes

SUMM . . . nuclei and other debris. The supernatant from this centrifugation step is then recentrifuged at 100,000 g for 90 minutes. The gp96-**peptide** complex can be purified either from the 100,000 pellet or from the supernatant.

SUMM . . . procedure, however, may be modified by two additional steps, used either alone or in combination, to consistently produce apparently homogeneous gp96-**peptide** complexes. One optional step involves an ammonium sulfate precipitation prior to the Con A purification step and the other optional. . .

SUMM . . . concentrations of 2 mM, respectively. Then the sample is purified by either the unmodified or the modified method for isolating gp96-**peptide** complex from the 100,000 g supernatant, see above.

SUMM [0134] The gp96-**peptide** complexes can be purified to apparent homogeneity using this procedure. About 10-20 .mu.g of gp96 can be isolated from 1. . .

SUMM [0135] 4.2.5. Preparation and Purification of hsp110-**peptide** Complexes

SUMM [0139] 4.2.6. Preparation and Purification of grp170-**peptide** Complexes

SUMM [0149] 4.2.10. **Peptides** from .alpha.2M or hsp-**Peptide** Complexes

SUMM [0150] Antigenic molecules (e.g. **peptides**) can be eluted from hsp-antigenic molecule complexes either in the presence of ATP or low pH. Antigenic molecules can be eluted from .alpha.2M-antigenic molecule complexes in the presence of low pH. These experimental conditions may be used to isolate **peptides** or non-**peptide** antigenic components from cells which may contain potentially useful antigenic determinants. Once isolated, the amino acid sequence of an antigenic **peptide** may be determined using conventional amino acid sequencing methodologies. Antigenic molecules can then be produced by chemical synthesis or recombinant. . .

SUMM [0151] Thus, potentially immunogenic or antigenic **peptides** may be isolated from either endogenous stress protein-**peptide** complexes or endogenous MHC-**peptide** complexes for use subsequently as antigenic molecules, by complexing in vitro to hsps.

SUMM . . . while the low molecular weight may be analyzed by HPLC as described below. In the ATP incubation protocol, the stress protein-**peptide** complex in the large molecular weight fraction is incubated with 10 mM ATP for 30 minutes at room temperature. In the low pH protocol, acetic acid or trifluoroacetic acid (TFA) is added to the stress protein **peptide** complex to give a final concentration of 10% (vol/vol) and the mixture incubated at room temperature or in a boiling. . .

SUMM . . . 10 assembly as mentioned previously. The high and low molecular weight fractions are recovered. The remaining large molecular weight stress protein-**peptide** complexes can be reincubated with ATP or low pH to remove any remaining **peptides**.

SUMM . . . by developing the column with a linear gradient of 0 to 80% acetonitrile in 0.1% TFA. The elution of the **peptides** can be monitored by OD.sub.210 and the fractions containing the **peptides** collected.

SUMM [0155] 4.2.11. **Peptides** from MHC-**Peptide** Complexes

SUMM [0156] The isolation of potentially immunogenic **peptides** from MHC molecules is well known in the art and so is not described in detail herein (See, Falk et. . .

SUMM [0157] Briefly, MHC-**peptide** complexes may be isolated by a conventional immunoaffinity procedure. The **peptides** then may be eluted from the MHC-**peptide** complex by incubating the complexes in the presence of about 0.1% TFA in acetonitrile. The eluted **peptides** may be fractionated and purified by reverse phase HPLC, as before.

SUMM [0158] The amino acid sequences of the eluted **peptides** may be determined either by manual or automated amino acid sequencing techniques well known in the art. Once the amino acid sequence of a potentially protective **peptide** has been determined the **peptide** may be synthesized in any desired amount using conventional **peptide** synthesis or other protocols well known in the art.

SUMM [0159] **Peptides** having the same amino acid sequence as those isolated above may be synthesized by solid-phase **peptide** synthesis using procedures similar to those described by Merrifield, 1963, J. Am. Chem. Soc. 85:2149. During synthesis, N-.alpha.-protected amino acids. . . stepwise to a growing polypeptide chain linked by its C-terminal and to an insoluble polymeric support i.e., polystyrene beads. The **peptides** are synthesized by linking an amino group of an N-.alpha.-deprotected amino acid to an .alpha.-carboxy group of an N-.alpha.-protected amino. . . it with a reagent such as dicyclohexylcarbodiimide. The attachment of a free amino group to the activated carboxyl leads to **peptide** bond formation. The most commonly used N-.alpha.-protecting groups include Boc which is acid labile and Fmoc which is base labile.

SUMM . . . is coupled to the activated .alpha.-carboxylate group of the next N-.alpha.-protected amino acid. The process is repeated until the desired **peptide** is synthesized. The resulting **peptides** are then cleaved from the insoluble polymer support and the amino acid side chains deprotected. Longer **peptides** can be derived by condensation of protected **peptide** fragments. Details of appropriate chemistries, resins, protecting groups, protected amino acids and reagents are well known in the art and so are not discussed in detail herein (See, Atherton et al., 1989, Solid Phase **Peptide** Synthesis: A Practical Approach, IRL Press, and Bodanszky, 1993, **Peptide** Chemistry, A Practical Textbook, 2nd Ed., Springer-Verlag).

SUMM [0161] Purification of the resulting **peptides** is accomplished using conventional procedures, such as preparative HPLC using gel permeation, partition and/or ion exchange chromatography. The choice of. . .

SUMM . . . molecules associated with neurodegenerative diseases, or epitopes of antigenic molecules associated with amyloid diseases, including but not limited to fibril **peptides** or proteins, are used. For example, such neurodegenerative disease-associated antigenic molecules may be molecules associated with Alzheimer's Disease, age-related loss. . . proteins. Amyloid disease associated antigenic molecules may be molecules associated with diseases characterized by the extracellular deposition of protein and/or **peptide** fibrils which form amyloid deposits or plaques, including but not limited to type II diabetes and amyloidoses associated with chronic. . .

SUMM [0173] In an embodiment in which complexes of hsps and the **peptides** with which they are endogenously associated in vivo are not employed, complexes of hsps to antigenic molecules are produced in vitro. As will be appreciated by those skilled in the art, the **peptides** either isolated by the aforementioned procedures or chemically synthesized or recombinantly produced may be reconstituted with a variety of purified. . .

SUMM [0174] Prior to complexing, the hsps are pretreated with ATP or low pH to remove any **peptides** that may be associated with the hsp of interest. When the ATP procedure is used, excess ATP is removed from. .

SUMM . . . mM phenyl methyl sulfonyl fluoride (PMSF). The preparations are centrifuged through a Centricon 10 assembly (Millipore) to remove any unbound **peptide**. The association of the **peptides** with the stress proteins can be assayed by SDS-PAGE. This is the preferred method for in vitro complexing of **peptides** isolated from MHC-**peptide** complexes of **peptides** disassociated from endogenous hsp-**peptide** complexes.

SUMM [0177] In an alternative embodiment of the invention, preferred for producing complexes of gp96 or hsp90 to **peptides**, 5-10 micrograms of purified gp96 or hsp90 is incubated with equimolar or excess quantities of the antigenic **peptide** in a suitable buffer such as one containing 20 mM sodium phosphate buffer pH 7.5, 0.5M NaCl, 3 nM MgCl2. . . room temperature and centrifuged one or more times if necessary, through a Centricon 10 assembly (Millipore) to remove any unbound **peptide**.

SUMM [0182] Additional embodiments of the invention relate to pharmaceutical compositions comprising either .alpha.2M or an hsp, optionally a **peptide** (which need not be antigenic), and a saponin adjuvant, for the prevention or treatment of an autoimmune disorder. These compositions. . .

SUMM . . . the carboxyl group on the glucuronic acid of saponins from Quillaja saponaria Molina can be conjugated to a protein, a **peptide**, or a small molecule containing a primary amine. According to Higuchi et al., 1987, Phytochemistry 26:229, saponins from Quillaja saponaria. . .

SUMM . . . human patient) is applied at 20.degree. C. for 1 hour, and the plates are washed 3 times with PBS-T. The anti-**peptide** antibody activity is then measured calorimetrically after incubating at 20.degree. C. for 1 hour with 50 .mu.l/well of sheep anti-mouse. . .

SUMM . . . of this method, peripheral blood mononuclear cells from a subject treated with a composition of the invention are stimulated with **peptide** antigens of a given tumor or with **peptide** antigens of an agent of infectious disease. Cells are then stained with T cell-specific labeled antibodies detectable by flow cytometry,. . .

SUMM . . . 274: 94-96) may be used to identify antigen-specific T-cells. For example, in one embodiment, an MHC molecule containing a specific **peptide** antigen, such as a tumor-specific antigen, is multimerized to make soluble **peptide** tetramers and labeled, for example, by complexing to streptavidin. The MHC-**peptide** antigen complex is then mixed with a population of T cells obtained from a subject treated with a composition of. . .

SUMM . . . be used to modify individual nucleotides in a DNA sequence, for purpose of making amino acid substitution(s) in the expressed **peptide** sequence, or for creating/deleting restriction sites to facilitate further manipulations. Such techniques include but are not limited to, chemical mutagenesis,. . .

SUMM . . . incorporated herein by reference, demonstrates that deletion of the ER retention signal of gp96 results in the secretion of gp96-Ig **peptide**-complexes from transfected tumor cells, and that fusion of the KDEL-deleted gp96 with murine IgG1 facilitated its detection by ELISA and. . .

SUMM . . . be used to modify individual nucleotides in a DNA sequence, for purpose of making amino acid substitution(s) in the expressed **peptide** sequence, or for creating/deleting restriction sites to facilitate further manipulations. Such techniques include but are not limited to, chemical mutagenesis,. . .

SUMM . . . polypeptide of any desired length can be generated using PCR primers that flank the nucleotide sequence encoding .alpha.2M, or the **peptide**-binding domain thereof. Alternatively, an .alpha.2M gene sequence can be cleaved at appropriate sites with restriction endonuclease(s) if such sites are available, releasing a fragment of DNA encoding .alpha.2M, or the **peptidebinding** domain thereof. If convenient restriction sites are not available, they may be created in the appropriate positions by site-directed mutagenesis. . . art (see, for example, Shankarappa et al., 1992, PCR Method Appl. 1:277-278). The DNA fragment that encodes .alpha.2M, or the **peptide**-binding domain thereof, is then isolated, and ligated into an appropriate expression vector, care being taken to ensure that the proper. . .

SUMM . . . purification from the cells in which they are expressed. For example, an .alpha.2M polypeptide may contain a signal sequence leader **peptide** to direct its translocation across the ER membrane for secretion into culture medium. Further, an .alpha.2M polypeptide may contain an. . . affinity label, such as a affinity label, fused to any portion of the .alpha.2M polypeptide not involved in binding antigenic **peptide**, such as for example, the carboxyl terminal. The affinity label can be used to facilitate purification of the protein, by. . .

SUMM . . . frame into a vector containing the sequence of an affinity label, such that the .alpha.2M polypeptide is expressed as a **peptide**-tagged fusion protein. Affinity labels, which may be recognized by specific binding partners, may be used for affinity purification of the. . .

SUMM . . . .alpha.2M polypeptide novel structural properties, such as the ability to form multimers. Dimerization of an .alpha.2M polypeptide with a bound **peptide** may increase avidity of interaction between the .alpha.2M polypeptide and its partner in the course of antigen presentation. These affinity. . .

SUMM . . . involved in disulfide bonding with other cysteines in the Ig molecule. Since none of the cysteines are required for the **peptide** to function as a tag, one or more of these cysteine residues may optionally be substituted by another amino acid. . .

SUMM . . . for the efficient secretion of .alpha.2M polypeptide from bacterial and mammalian cells (von Heijne, 1985, J. Mol. Biol. 184:99-105). Leader **peptides** are selected based on the intended host cell, and may include bacterial, yeast, viral, animal, and mammalian sequences. For example, the herpes virus glycoprotein D leader **peptide** is suitable for use in a variety of mammalian cells. A preferred leader **peptide** for use in mammalian cells can be obtained from the V-J2-C region of the mouse immunoglobulin kappa chain (Bernard et. . .

SUMM [0261] DNA sequences encoding a desired affinity label or leader **peptide**, which may be readily obtained from libraries, produced synthetically, or may be available from commercial suppliers, are suitable for the. . .

SUMM [0272] For long-term, high-yield production of properly processed hsp-**peptide** complexes, stable expression in mammalian cells is preferred. Cell lines that stably express hsps or .alpha.2M and antigenic molecules to produce hsp-**peptide** complexes for incorporating into the compositions of the present invention may be engineered by using a vector that contains a. . .

SUMM . . . repeat (LTR), a 3' LTR, a packaging signal, a bacterial origin of replication, and a selectable marker. The ND-associated antigenic **peptide** DNA is inserted into a position between the 5' LTR and 3' LTR, such that transcription from the 5' LTR. . .

SUMM . . . of the present invention include but are not limited to are diseases characterized by the extracellular deposition of protein and/or **peptide** fibrils which form amyloid deposits or plaques, including but not limited to type II diabetes and amyloidoses associated with chronic. . .

SUMM . . . done prior to administration, before or after the compositions of the invention are formulated. Wherein covalent complexing of an endogenous hsp-**peptide** complex is desired, the complex is preferably cross-linked after purification from cells or tissues. In one embodiment, antigenic molecules are. . . in a preferred embodiment, glutaraldehyde crosslinking may be used. Glutaradehyde crosslinking has been used for formation of covalent complexes of **peptides** and hsps (see Barrios et al., 1992, Eur. J. Immunol. 22: 1365-1372). Preferably, 1-2 mg of complex is crosslinked in. . .

SUMM . . . adoptive immunotherapy using APC sensitized with hsp- or .alpha.2M-antigenic molecule complexes. As described in Section 4.10

herein, the hsp- or .alpha.2M-**peptide** complex-sensitized APC can be administered alone, in combination claimed compositions, or before or after administration of the claimed compositions. Furthermore,. . .

SUMM . . . 15 minutes to 24 hours. By way of example but not limitation, 4.times.10.sup.7 macrophages can be incubated with 10 microgram gp96-**peptide** complexes per ml or 100 microgram hsp90-**peptide** complexes per ml at 37.degree. C. for 15 minutes-24 hours in 1 ml plain RPMI medium. The cells are washed. . .

SUMM . . . of a putative biomarker for risk of a specific cancer are measured to monitor the effect of hsp bound to **peptide** complexes. For example, in individuals at enhanced risk for prostate cancer, serum prostate-specific antigen molecule (PSA) is measured by the. . .

SUMM . . . will be understood that, where reference is made to an antigenic molecule as a component of a composition, an antigenic **peptide** or full-length protein may be used (e.g. having more than 50 amino acid residues). The amount of an antigenic molecule,. . .

DETD . . . day interval, either (i) phosphate buffer saline (PBS), (ii) 0.1, 1, 10, 25, 50, or 100 .mu.g/mouse of, for example, gp96-**peptide** complexes derived from UV6138 carcinomas, or (iii) 0.1, 1, 10, 25, 50, or 100 .mu.g/mouse of gp96-**peptide** complexes derived from UV3169SJ carcinoma. For each dosage of gp96-**peptide** complex, 0, 1.6, 10, 20, 50, or 100 .mu.g of saponin fraction QS-21 (reconstituted in PBS from lyophilized powder) is mixed with the gp96-**peptide** complexes and coadministered. Control sets of mice receive the dosage series of QS-21 alone.

DETD [0399] Coadministration of one or more saponins along with gp96-**peptide** complexes will elicit the desired immune response using reduced levels of the gp96-**peptide** complexes as compared to gp96-**peptide** complexes administered alone (i.e. in the absence of saponin). Accordingly, the invention provides the advantage of permitting reduction of the amount of an hsp or .alpha.2M-**peptide** complex required to elicit a desired immune response for prevention or treatment of cancer or infectious disease.

DETD . . . a second group receive, every other day for a total of five injections, 6, 1, 0.6, or 0.1 .mu.g/mouse of gp96-**peptide** complex derived from UV6139SJ carcinoma cells. Mice in a third group receive, in a similar manner, a total of five injections of gp96-**peptide** complex derived from normal liver. Mice in a fourth group receive, in a similar manner, a total of five injections of gp96-**peptide** complex derived from the UV6139SJ carcinoma cells, mixed with 20 or 100 .mu.g of QS-21. The mice in the fifth group receive, in a similar manner, a total of five injections of gp96-**peptide** complex derived from normal liver mixed with 20 or 100 .mu.g QS-21. Finally, the mice in the sixth group receive. . .

DETD . . . the liver-derived gp96 or in untreated mice (see U.S. Pat. No. 5,837,251). These results indicated a therapeutic effect of gp96 **peptide** complexes in the UV6139SJ carcinoma model. All mice eventually succumbed to tumor growth. A scrutiny of the kinetics of tumor growth in treated and control mice shows that administration of tumor-derived gp96-**peptide** complex had an immediate inhibitory effect on tumor growth and that the effect appears to diminish after treatment with gp96-**peptide** complex is terminated.

DETD [0403] Coadministration of QS-21 with gp96-**peptide** complex derived from UV6139SJ carcinoma cells will result in a retardation of tumor growth when using smaller amounts of gp96-**peptide** complex as compared to the group receiving gp96-**peptide** complex from UV6139SJ carcinoma cells without QS-21. The administration of QS-21 alone, or gp96-**peptide** complex from normal liver plus QS-21, will not result in any significant difference as compared to the PBS control, or gp96-**peptide** complex from normal liver, respectively.

DETD . . . growth of established tumors using reduced amounts of the hsp or .alpha.2M when saponin adjuvant is present. Additionally, recombinantly-expressed antigenic **peptide** -.alpha.2M or -hsp fusion proteins can also be employed to elicit immunosuppression of new tumors and retarded growth of established. . .

CLM What is claimed is:

1. A pharmaceutical composition comprising a purified **heat shock protein** (hsp) and a saponin.

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=> d his

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     FILE 'MEDLINE, CANCERLIT, BIOSIS, CONFSCI, EMBASE, CAPLUS, USPATFULL'
     ENTERED AT 15:26:27 ON 20 FEB 2003
L1        72563 S HEAT (A) SHOCK (A) PROTEIN
L2           40 S L1 AND ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L3           33 DUP REM L2 (7 DUPLICATES REMOVED)
L4        12721 S L1 AND ANTIBOD?
L5           21 S L4 AND L2
L6           19 DUP REM L5 (2 DUPLICATES REMOVED)
L7         1585 S AGONIST? AND L1
L8            4 S L7 AND L2
L9         8637 S L1 AND PEPTIDE?
L10          27 S L9 AND L2
L11          24 DUP REM L10 (3 DUPLICATES REMOVED)
L12          11 S L11 AND MODULATE?

=> s alpha (a) 2 (a) macroglobulin (a) receptor
L13       1624 ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR

=> s l13 and modulat?
L14        160 L13 AND MODULAT?

=> dup rem l14
PROCESSING COMPLETED FOR L14
L15         110 DUP REM L14 (50 DUPLICATES REMOVED)

=> s l15 and heat (a) shock (a) protein
   6 FILES SEARCHED...
L16         14 L15 AND HEAT (A) SHOCK (A) PROTEIN

=> d l-14

L16  ANSWER 1 OF 14  CAPLUS  COPYRIGHT 2003 ACS
AN   2002:937303  CAPLUS
DN   138:20443
TI   Endocrine disruptor screening using DNA chips of endocrine
     disruptor-responsive genes
IN   Kondo, Akihiro; Takeda, Takeshi; Mizutani, Shigetoshi; Tsujimoto,
     Yoshimasa; Takashima, Ryokichi; Enoki, Yuki; Kato, Ikunoshin
PA   Takara Bio Inc., Japan
SO   Jpn. Kokai Tokkyo Koho, 386 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ---------------   ----  --------      ---------------  --------
PI   JP 2002355079     A2    20021210      JP 2002-69354    20020313
PRAI JP 2001-73183     A     20010314
     JP 2001-74993     A     20010315
     JP 2001-102519    A     20010330
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L16 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2003 ACS
AN 2001:886449 CAPLUS
DN 136:36328
TI **Alpha 2 macroglobulin receptors as a heat shock protein** receptor and uses thereof
IN Srivastava, Pramod K.
PA University of Connecticut Health Center, USA
SO PCT Int. Appl., 236 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001092474	A1	20011206	WO 2001-US18041	20010604
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI	US 2000-209095P	P	20000602		
	US 2000-625137	A	20000725		
	US 2000-668724	A	20000922		
	US 2000-750972	A	20001228		

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2003 ACS
AN 2001:851435 CAPLUS
DN 136:1570
TI Compositions, kits, and methods for identification and **modulation** of T helper-1 and T helper-2 cells and diseases associated therewith
IN Hanrahan, Catherine F.; Feldman, Marc; Trepicchio, William L.
PA Genetics Institute, Inc., USA; Kennedy Institute of Rheumatology
SO PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001088199	A2	20011122	WO 2001-US16022	20010517
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2002039734	A1	20020404	US 2001-860655	20010517
PRAI	US 2000-205204P	P	20000518		

L16 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2003 ACS
AN 2001:763235 CAPLUS
DN 135:314399
TI Detection of variations in the DNA methylation profile of genes in the determining the risk of disease
IN Berlin, Kurt; Piepenbrock, Christian; Olek, Alexander
PA Epigenomics A.-G., Germany
SO PCT Int. Appl., 636 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 68

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001077373	A2	20011018	WO 2001-DE1486	20010406
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 10019058	A1	20011220	DE 2000-10019058	20000406
	WO 2001077373	A2	20011018	WO 2001-XA1486	20010406
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, CF, CG, CI, CM, GA, GW, ML, MR, NE, SN, TD, TG				
	WO 2001077373	A2	20011018	WO 2001-XB1486	20010406
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, CF, CG, CI, CM, GA, GW, ML, MR, NE, SN, TD, TG				
	EP 1274865	A2	20030115	EP 2001-953936	20010406
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	EP 1278892	A1	20030129	EP 2001-940158	20010406
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI	DE 2000-10019058	A	20000406		
	DE 2000-10019173	A	20000407		
	DE 2000-10032529	A	20000630		
	DE 2000-10043826	A	20000901		
	WO 2001-DE1486	W	20010406		
	WO 2001-EP3969	W	20010406		

L16 ANSWER 5 OF 14 USPATFULL
AN 2003:40533 USPATFULL
TI Methods for the inhibition of epstein-barr virus transmission employing anti-viral peptides capable of abrogating viral fusion and transmission
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6518013 B1 20030211
AI US 1995-485546 19950607 (8)
RLI Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS GRANTED
LN.CNT 24700
INCL INCLM: 435/005.000
INCLS: 424/230.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000

NCL NCLM: 435/005.000
NCLS: 424/230.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
IC [7]
ICM: C12Q001-70
EXF 435/5; 530/300; 530/324-329; 530/350; 424/230.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 6 OF 14 USPATFULL
AN 2002:315069 USPATFULL
TI Compositions and methods for treatment of neoplastic disease
IN Terman, David S., Pebble Beach, CA, UNITED STATES
PI US 2002177551 A1 20021128
AI US 2001-870759 A1 20010530 (9)
PRAI US 2000-208128P 20000531 (60)
DT Utility
FS APPLICATION
LN.CNT 17323
INCL INCLM: 514/012.000
INCLS: 435/325.000; 530/350.000
NCL NCLM: 514/012.000
NCLS: 435/325.000; 530/350.000
IC [7]
ICM: A61K038-17
ICS: C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 7 OF 14 USPATFULL
AN 2002:297296 USPATFULL
TI Methods for inhibition of membrane fusion-associated events, including respiratory syncytial virus transmission
IN Bolognesi, Dani Paul, Durham, NC, United States
Matthews, Thomas James, Durham, NC, United States
Wild, Carl T., Durham, NC, United States
Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
Langlois, Alphonse J., Durham, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6479055 B1 20021112
AI US 1995-470896 19950606 (8)
RLI Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS GRANTED
LN.CNT 26553
INCL INCLM: 424/211.100
INCLS: 424/186.100; 530/324.000
NCL NCLM: 424/211.100
NCLS: 424/186.100; 530/324.000
IC [7]
ICM: A61K039-145
EXF 435/5; 435/240.2; 424/184.1-189.1; 424/204.1-211.1; 424/225.1; 424/227.1; 424/230.1; 514/1; 514/2; 530/324; 530/350; 530/826
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 8 OF 14 USPATFULL
AN 2002:259381 USPATFULL
TI Materials and methods relating to lipid metabolism
IN Ballinger, Dennis G., Menlo Park, CA, UNITED STATES
Loeb, Deborah, San Jose, CA, UNITED STATES
Montgomery, Julie R., Santa Cruz, CA, UNITED STATES
Tang, Y. Tom, San Jose, CA, UNITED STATES
Zhou, Ping, Cupertino, CA, UNITED STATES
Goodrich, Ryle, San Jose, CA, UNITED STATES
Liu, Chenghua, San Jose, CA, UNITED STATES
Asundi, Vinod, Foster City, CA, UNITED STATES
Zhao, Qing A., San Jose, CA, UNITED STATES
Wehrman, Tom, Stanford, CA, UNITED STATES
Drmanac, Radoje T., Palo Alto, CA, UNITED STATES
Ren, Feiyan, Cupertino, CA, UNITED STATES
Qian, Xiaohong B., San Jose, CA, UNITED STATES
Wang, Dunrui, Poway, CA, UNITED STATES
PI US 2002142953 A1 20021003
AI US 2001-835996 A1 20010416 (9)
RLI Continuation-in-part of Ser. No. US 2000-714936, filed on 17 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-667298, filed on 22 Sep 2000, PENDING Continuation-in-part of Ser. No. US 2000-631451, filed on 3 Aug 2000, PENDING Continuation-in-part of Ser. No. US 2000-598042, filed on 20 Jun 2000, PENDING
PRAI US 2000-197137P 20000414 (60)
DT Utility
FS APPLICATION
LN.CNT 9120
INCL INCLM: 514/012.000
INCLS: 435/069.100; 435/325.000; 435/320.100; 530/359.000; 435/196.000; 536/023.200
NCL NCLM: 514/012.000
NCLS: 435/069.100; 435/325.000; 435/320.100; 530/359.000; 435/196.000; 536/023.200
IC [7]
ICM: A61K038-17
ICS: C07H021-04; C12N009-16; C12P021-02; C12N005-06; C07K014-775
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 9 OF 14 USPATFULL
AN 2002:206116 USPATFULL
TI Toxicant-induced differential gene expression
IN Reidhaar-Olson, John F., Montclair, NJ, UNITED STATES
PI US 2002110808 A1 20020815
AI US 2000-489220 A1 20000121 (9)
DT Utility
FS APPLICATION
LN.CNT 5161
INCL INCLM: 435/006.000
INCLS: 435/091.200; 536/023.100
NCL NCLM: 435/006.000
NCLS: 435/091.200; 536/023.100
IC [7]
ICM: C12Q001-68
ICS: C07H021-02; C07H021-04; C12P019-34
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 10 OF 14 USPATFULL
AN 2002:164658 USPATFULL
TI Immunotherapeutic methods for extracorporeal modulation of CD36 and its ligands
IN Srivastava, Pramod K., Avon, CT, UNITED STATES
PI US 2002086276 A1 20020704
AI US 2000-750973 A1 20001228 (9)
DT Utility
FS APPLICATION
LN.CNT 1813
INCL INCLM: 435/002.000
INCLS: 424/140.100
NCL NCLM: 435/002.000
NCLS: 424/140.100
IC [7]
ICM: A61K039-395

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 11 OF 14 USPATFULL
AN 2002:136555 USPATFULL
TI Methods of **modulating** an immune response to antigen, and cells for use in the method
IN Segal, Andrew H., Boston, MA, United States
PA Whitehead Institute for Biomedical Research, Cambridge, MA, United States (U.S. corporation)
PI US 6403080 B1 20020611
AI US 1999-339523 19990624 (9)
RLI Division of Ser. No. US 1997-826259, filed on 27 Mar 1997, now patented, Pat. No. US 5951976
PRAI US 1996-14364P 19960328 (60)
DT Utility
FS GRANTED
LN.CNT 2153
INCL INCLM: 424/093.100
INCLS: 424/093.200; 424/093.210; 424/093.700; 424/093.710; 424/136.100; 435/325.000; 514/002.000; 514/012.000; 530/387.300
NCL NCLM: 424/093.100
NCLS: 424/093.200; 424/093.210; 424/093.700; 424/093.710; 424/136.100; 435/325.000; 514/002.000; 514/012.000; 530/387.300
IC [7]
ICM: A01N063-00
ICS: A61K039-395; A61K038-00; C12P021-08
EXF 424/93.21; 424/93.7; 424/93.1; 424/93.2; 424/93.71; 424/136.1; 435/325; 514/12; 514/21; 530/387.3
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 12 OF 14 USPATFULL
AN 2002:66639 USPATFULL
TI Compositions comprising **heat shock proteins** or alpha(2) macroglobulin, antigenic molecules and saponins, and methods of use thereof
IN Armen, Garo H., Manhasset, NY, UNITED STATES
PI US 2002037290 A1 20020328
AI US 2001-909778 A1 20010720 (9)
PRAI US 2000-223133P 20000807 (60)
DT Utility
FS APPLICATION
LN.CNT 4136
INCL INCLM: 424/178.100
INCLS: 514/012.000; 514/026.000
NCL NCLM: 424/178.100
NCLS: 514/012.000; 514/026.000
IC [7]
ICM: A61K039-395
ICS: A61K038-17
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 13 OF 14 USPATFULL
AN 2001:67794 USPATFULL
TI Human respiratory syncytial virus peptides with antifusogenic and antiviral activities
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6228983 B1 20010508
AI US 1995-485264 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995
Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994
Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994
Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 32166
INCL INCLM: 530/300.000
INCLS: 530/324.000; 530/325.000; 530/326.000; 424/211.100; 424/186.100
NCL NCLM: 530/300.000
NCLS: 424/186.100; 424/211.100; 530/324.000; 530/325.000; 530/326.000
IC [7]
ICM: A61K038-00
EXF 530/350; 530/324-329; 530/300; 424/211.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 14 OF 14 USPATFULL
AN 1999:141305 USPATFULL
TI Adjuvant for transcutaneous immunization
IN Glenn, Gregory M., Bethesda, MD, United States
Alving, Carl R., Bethesda, MD, United States
PA The United States of America as represented by the U.S. Army Medical Research & Material Command, Washington, DC, United States (U.S. government)
PI US 5980898 19991109
AI US 1997-896085 19970717 (8)
RLI Continuation-in-part of Ser. No. US 1996-749164, filed on 14 Nov 1996
DT Utility
FS Granted
LN.CNT 1988
INCL INCLM: 424/184.100
INCLS: 424/449.000; 424/450.000; 424/236.000; 424/240.100; 424/241.100; 424/275.100; 530/363.000; 530/403.000
NCL NCLM: 424/184.100
NCLS: 424/085.100; 424/240.100; 424/241.100; 424/275.100; 424/449.000; 424/450.000; 530/363.000; 530/403.000
IC [6]
ICM: A61K039-00
ICS: C07K014-005; C07K014-195
EXF 424/449; 424/450; 424/184.1; 424/236; 424/240.1; 424/241.1; 424/275.1; 530/363; 530/403
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 15:25:49 ON 20 FEB 2003)

FILE 'MEDLINE, CANCERLIT, BIOSIS, CONFSCI, EMBASE, CAPLUS, USPATFULL'
ENTERED AT 15:26:27 ON 20 FEB 2003
L1 72563 S HEAT (A) SHOCK (A) PROTEIN
L2 40 S L1 AND ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L3 33 DUP REM L2 (7 DUPLICATES REMOVED)
L4 12721 S L1 AND ANTIBOD?
L5 21 S L4 AND L2
L6 19 DUP REM L5 (2 DUPLICATES REMOVED)
L7 1585 S AGONIST? AND L1
L8 4 S L7 AND L2
L9 8637 S L1 AND PEPTIDE?
L10 27 S L9 AND L2
L11 24 DUP REM L10 (3 DUPLICATES REMOVED)
L12 11 S L11 AND MODULATE?
L13 1624 S ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L14 160 S L13 AND MODULAT?
L15 110 DUP REM L14 (50 DUPLICATES REMOVED)
L16 14 S L15 AND HEAT (A) SHOCK (A) PROTEIN

=> s l14 and peptid?

```
L17         50 L14 AND PEPTID?

=> dup rem l17
PROCESSING COMPLETED FOR L17
L18          50 DUP REM L17 (0 DUPLICATES REMOVED)

=> d 1-50

L18  ANSWER 1 OF 50  USPATFULL
AN      2003:37603  USPATFULL
TI      Human cDNAs and proteins and uses thereof
IN      Bejanin, Stephane, Paris, FRANCE
        Tanaka, Hiroaki, Antony, FRANCE
PA      GENSET, S.A., Paris, FRANCE, 75008 (non-U.S. corporation)
PI      US 2003027248       A1   20030206
AI      US 2001-924340      A1   20010806 (9)
PRAI    US 2001-305456P      20010713 (60)
        US 2001-302277P      20010629 (60)
        US 2001-298698P      20010615 (60)
        US 2001-293574P      20010525 (60)
DT      Utility
FS      APPLICATION
LN.CNT 25650
INCL    INCLM: 435/069.100
        INCLS: 435/183.000; 435/320.100; 435/325.000; 530/350.000; 536/023.200;
               435/006.000
NCL     NCLM:  435/069.100
        NCLS:  435/183.000; 435/320.100; 435/325.000; 530/350.000; 536/023.200;
               435/006.000
IC      [7]
        ICM: C12P021-02
        ICS: C12Q001-68; C07H021-04; C12N009-00; C12N005-06

L18  ANSWER 2 OF 50  USPATFULL
AN      2003:37516  USPATFULL
TI      Human cDNAs and proteins and uses thereof
IN      Bejanin, Stephane, Paris, FRANCE
        Tanaka, Hiroaki, Antony, FRANCE
PA      GENSET, S.A., Paris, FRANCE, 75008 (non-U.S. corporation)
PI      US 2003027161       A1   20030206
AI      US 2001-992600      A1   20011113 (9)
RLI     Division of Ser. No. US 2001-924340, filed on 6 Aug 2001, PENDING
PRAI    WO 2001-IB1715       20010806
        US 2001-305456P      20010713 (60)
        US 2001-302277P      20010629 (60)
        US 2001-298698P      20010615 (60)
        US 2001-293574P      20010525 (60)
DT      Utility
FS      APPLICATION
LN.CNT 25529
INCL    INCLM: 435/006.000
        INCLS: 435/069.100; 435/183.000; 435/320.100; 435/325.000; 530/350.000;
               536/023.200; 800/008.000
NCL     NCLM:  435/006.000
        NCLS:  435/069.100; 435/183.000; 435/320.100; 435/325.000; 530/350.000;
               536/023.200; 800/008.000
IC      [7]
        ICM: C12Q001-68
        ICS: A01K067-00; C07H021-04; C12N009-00; C12P021-02; C12N005-06

L18  ANSWER 3 OF 50  USPATFULL
AN      2003:37187  USPATFULL
TI      Anionic liposomes for delivery of bioactive agents
IN      Lakkaraju, Aparna, Minneapolis, MN, UNITED STATES
        Dubinsky, Janet M., St. Paul, MN, UNITED STATES
        Low, Walter, Shorewood, MN, UNITED STATES
        Rahman, Yueh-Erh, LaJolla, CA, UNITED STATES
PI      US 2003026831       A1   20030206
AI      US 2002-131786      A1   20020422 (10)
PRAI    US 2001-285337P      20010420 (60)
DT      Utility
FS      APPLICATION
LN.CNT 3617
INCL    INCLM: 424/450.000
NCL     NCLM:  424/450.000
IC      [7]
        ICM: A61K009-127

L18  ANSWER 4 OF 50  USPATFULL
AN      2003:30238  USPATFULL
TI      Secreted protein HLHFP03
IN      Fischer, Carrie L., Burke, VA, UNITED STATES
        Rosen, Craig A., Laytonsville, MD, UNITED STATES
        Soppet, Daniel R., Centreville, VA, UNITED STATES
        Ruben, Steven M., Olney, MD, UNITED STATES
        Kyaw, Hla, Frederick, MD, UNITED STATES
        Li, Yi, Sunnyvale, CA, UNITED STATES
        Zeng, Zhizhen, Lansdale, PA, UNITED STATES
        LaFleur, David W., Washington, DC, UNITED STATES
        Moore, Paul A., Germantown, MD, UNITED STATES
        Shi, Yanggu, Gaithersburg, MD, UNITED STATES
        Olsen, Henrik S., Gaithersburg, MD, UNITED STATES
        Ebner, Reinhard, Gaithersburg, MD, UNITED STATES
        Brewer, Laurie A., St. Paul, MN, UNITED STATES
PI      US 2003022185       A1   20030130
AI      US 2001-983802      A1   20011025 (9)
RLI     Continuation of Ser. No. US 1999-227357, filed on 8 Jan 1999, GRANTED,
        Pat. No. US 6342581 Continuation-in-part of Ser. No. WO 1998-US13684,
        filed on 7 Jul 1998, UNKNOWN
PRAI    US 1997-51926P       19970708 (60)
        US 1997-52793P       19970708 (60)
        US 1997-51925P       19970708 (60)
        US 1997-51929P       19970708 (60)
        US 1997-52803P       19970708 (60)
        US 1997-52732P       19970708 (60)
        US 1997-51931P       19970708 (60)
        US 1997-51932P       19970708 (60)
        US 1997-51916P       19970708 (60)
        US 1997-51930P       19970708 (60)
        US 1997-51918P       19970708 (60)
        US 1997-51920P       19970708 (60)
        US 1997-52733P       19970708 (60)
        US 1997-52795P       19970708 (60)
        US 1997-51919P       19970708 (60)
        US 1997-51928P       19970708 (60)
        US 1997-55722P       19970818 (60)
        US 1997-55723P       19970818 (60)
        US 1997-55948P       19970818 (60)
        US 1997-55949P       19970818 (60)
        US 1997-55953P       19970818 (60)
        US 1997-55950P       19970818 (60)
        US 1997-55947P       19970818 (60)
        US 1997-55964P       19970818 (60)
        US 1997-56360P       19970818 (60)
        US 1997-55684P       19970818 (60)
        US 1997-55984P       19970818 (60)
        US 1997-55954P       19970818 (60)
        US 1997-58785P       19970912 (60)
        US 1997-58664P       19970912 (60)
        US 1997-58660P       19970912 (60)
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US 1997-58661P 19970912 (60)
DT Utility
FS APPLICATION
LN.CNT 19390
INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/325.000; 435/320.100; 435/183.000; 536/023.200
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/325.000; 435/320.100; 435/183.000; 536/023.200
IC [7]
ICM: C12Q001-68
ICS: C07H021-04; C12N009-00; C12P021-02; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 5 OF 50 USPATFULL
AN 2003:24136 USPATFULL
TI Antibody and chemokine constructs and their use in the treatment of infections and immunological diseases
IN Mack, Matthias, Munich, GERMANY, FEDERAL REPUBLIC OF
Schlondorff, Detlef, Munich, GERMANY, FEDERAL REPUBLIC OF
Spring, Michael, Eichenau, GERMANY, FEDERAL REPUBLIC OF
PI US 2003017979 A1 20030123
AI US 2001-948004 A1 20010905 (9)
RLI Continuation-in-part of Ser. No. WO 2000-EP2154, filed on 10 Mar 2000, UNKNOWN
PRAI DE 1999-19910891 19990311
EP 2000-119694 20000908
DT Utility
FS APPLICATION
LN.CNT 4129
INCL INCLM: 514/012.000
INCLS: 530/351.000; 435/069.500
NCL NCLM: 514/012.000
NCLS: 530/351.000; 435/069.500
IC [7]
ICM: A61K038-19
ICS: C12P021-02; C07K014-52
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 6 OF 50 USPATFULL
AN 2003:40533 USPATFULL
TI Methods for the inhibition of epstein-barr virus transmission employing anti-viral **peptides** capable of abrogating viral fusion and transmission
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6518013 B1 20030211
AI US 1995-485546 19950607 (8)
RLI Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS GRANTED
LN.CNT 24700
INCL INCLM: 435/005.000
INCLS: 424/230.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
NCL NCLM: 435/005.000
NCLS: 424/230.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
IC [7]
ICM: C12Q001-70
EXF 435/5; 530/300; 530/324-329; 530/350; 424/230.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 7 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2002:888494 CAPLUS
DN 137:381503
TI Compositions and methods for **modulating** Dkk-mediated protein interactions and their diagnostic and therapeutic uses
IN Allen, Kristina; Anisowicz, Anthony; Bhat, Bheem M.; Damagnez, Veronique; Robinson, John Allen; Yaworsky, Paul J.
PA Genome Therapeutics Corporation, USA; Wyeth, John and Brother Ltd.
SO PCT Int. Appl., 376 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002092015	A2	20021121	WO 2002-US15982	20020517
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI US 2001-291311P	P	20010517		
US 2002-353058P	P	20020201		
US 2002-361293P	P	20020304		

L18 ANSWER 8 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2002:736374 CAPLUS
DN 137:259633
TI Protein-protein interactions of CLIC1 and diagnosis and treatment of proinflammatory immune response and other diseases
IN Cimbora, Daniel M.; Heichman, Karen; Bartel, Paul L.
PA Myriad Genetics, Inc, USA
SO PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002074919	A2	20020926	WO 2002-US8025	20020315
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002197626	A1	20021226	US 2002-98192	20020315
PRAI US 2001-276037P	P	20010316		

L18 ANSWER 9 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2002:89853 CAPLUS
DN 136:145258
TI Methods for the treatment of neurol. disorders with agents that bind to low-d. lipoprotein receptor-related protein receptors
IN Hyman, Bradley T.; Strickland, Dudley K.; Bacskai, Brian J.; Rebeck, G. William
PA The General Hospital Corporation, USA; The American National Red Cross

SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002007755	A1	20020131	WO 2000-US40636	20000815

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 2000-220249P P 20000724
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 10 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2002:850252 CAPLUS
DN 137:363083
TI Methods of suppressing microglial activation by administering compounds binding to microglial receptors
IN Laskowitz, Daniel T.; Matthew, William D.; McMillian, Michael
PA USA
SO U.S. Pat. Appl. Publ., 25 pp., Cont.-in-part of U. S. Ser. No. 260,430.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002164789	A1	20021107	US 2001-957909	20010921
PRAI US 1998-77551P	P	19980311		
US 1999-260430	A2	19990301		

L18 ANSWER 11 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2002:937303 CAPLUS
DN 138:20443
TI Endocrine disruptor screening using DNA chips of endocrine disruptor-responsive genes
IN Kondo, Akihiro; Takeda, Takeshi; Mizutani, Shigetoshi; Tsujimoto, Yoshimasa; Takashima, Ryokichi; Enoki, Yuki; Kato, Ikunoshin
PA Takara Bio Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 386 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002355079	A2	20021210	JP 2002-69354	20020313
PRAI JP 2001-73183	A	20010314		
JP 2001-74993	A	20010315		
JP 2001-102519	A	20010330		

L18 ANSWER 12 OF 50 USPATFULL
AN 2002:315069 USPATFULL
TI Compositions and methods for treatment of neoplastic disease
IN Terman, David S., Pebble Beach, CA, UNITED STATES
PI US 2002177551 A1 20021128
AI US 2001-870759 A1 20010530 (9)
PRAI US 2000-208128P 20000531 (60)
DT Utility
FS APPLICATION
LN.CNT 17323
INCL INCLM: 514/012.000
INCLS: 435/325.000; 530/350.000
NCL NCLM: 514/012.000
NCLS: 435/325.000; 530/350.000
IC [7]
ICM: A61K038-17
ICS: C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 13 OF 50 USPATFULL
AN 2002:259381 USPATFULL
TI Materials and methods relating to lipid metabolism
IN Ballinger, Dennis G., Menlo Park, CA, UNITED STATES
Loeb, Deborah, San Jose, CA, UNITED STATES
Montgomery, Julie R., Santa Cruz, CA, UNITED STATES
Tang, Y. Tom, San Jose, CA, UNITED STATES
Zhou, Ping, Cupertino, CA, UNITED STATES
Goodrich, Ryle, San Jose, CA, UNITED STATES
Liu, Chenghua, San Jose, CA, UNITED STATES
Asundi, Vinod, Foster City, CA, UNITED STATES
Zhao, Qing A., San Jose, CA, UNITED STATES
Wehrman, Tom, Stanford, CA, UNITED STATES
Drmanac, Radoje T., Palo Alto, CA, UNITED STATES
Ren, Feiyan, Cupertino, CA, UNITED STATES
Qian, Xiaohong B., San Jose, CA, UNITED STATES
Wang, Dunrui, Poway, CA, UNITED STATES
PI US 2002142953 A1 20021003
AI US 2001-835996 A1 20010416 (9)
RLI Continuation-in-part of Ser. No. US 2000-714936, filed on 17 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-667298, filed on 22 Sep 2000, PENDING Continuation-in-part of Ser. No. US 2000-631451, filed on 3 Aug 2000, PENDING Continuation-in-part of Ser. No. US 2000-598042, filed on 20 Jun 2000, PENDING
PRAI US 2000-197137P 20000414 (60)
DT Utility
FS APPLICATION
LN.CNT 9120
INCL INCLM: 514/012.000
INCLS: 435/069.100; 435/325.000; 435/320.100; 530/359.000; 435/196.000; 536/023.200
NCL NCLM: 514/012.000
NCLS: 435/069.100; 435/325.000; 435/320.100; 530/359.000; 435/196.000; 536/023.200
IC [7]
ICM: A61K038-17
ICS: C07H021-04; C12N009-16; C12P021-02; C12N005-06; C07K014-775
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 14 OF 50 USPATFULL
AN 2002:242784 USPATFULL
TI Compositions and methods for **modulating** muscle cell and tissue contractility
IN Cines, Douglas B., Wynnewood, PA, UNITED STATES
Higazi, Abd Al-Roof, Jerusalem, ISRAEL
PA The Trustees of the University of Pennsylvania (U.S. corporation)
PI US 2002131964 A1 20020919
AI US 2001-880503 A1 20010613 (9)
PRAI US 2000-212874P 20000620 (60)
DT Utility
FS APPLICATION
LN.CNT 3572

INCL INCLM: 424/094.630
NCL NCLM: 424/094.630
IC [7]
ICM: A61K038-48
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 15 OF 50 USPATFULL
AN 2002:206116 USPATFULL
TI Toxicant-induced differential gene expression
IN Reidhaar-Olson, John F., Montclair, NJ, UNITED STATES
PI US 2002110808 A1 20020815
AI US 2000-489220 A1 20000121 (9)
DT Utility
FS APPLICATION
LN.CNT 5161
INCL INCLM: 435/006.000
INCLS: 435/091.200; 536/023.100
NCL NCLM: 435/006.000
NCLS: 435/091.200; 536/023.100
IC [7]
ICM: C12Q001-68
ICS: C07H021-02; C07H021-04; C12P019-34
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 16 OF 50 USPATFULL
AN 2002:164658 USPATFULL
TI Immunotherapeutic methods for extracorporeal **modulation** of CD36 and its ligands
IN Srivastava, Pramod K., Avon, CT, UNITED STATES
PI US 2002086276 A1 20020704
AI US 2000-750973 A1 20001228 (9)
DT Utility
FS APPLICATION
LN.CNT 1813
INCL INCLM: 435/002.000
INCLS: 424/140.100
NCL NCLM: 435/002.000
NCLS: 424/140.100
IC [7]
ICM: A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 17 OF 50 USPATFULL
AN 2002:105967 USPATFULL
TI Complex for transferring an anionic substance of interest into a cell
IN Rittner, Karola, Strasbourg, FRANCE
Jacobs, Eric, Stotheim, FRANCE
PI US 2002055174 A1 20020509
AI US 2001-865553 A1 20010529 (9)
PRAI EP 2000-440162 20000526
EP 2001-440049 20010227
US 2000-246083P 20001107 (60)
US 2001-277982P 20010323 (60)
DT Utility
FS APPLICATION
LN.CNT 1919
INCL INCLM: 435/463.000
INCLS: 530/350.000
NCL NCLM: 435/463.000
NCLS: 530/350.000
IC [7]
ICM: C12N015-87
ICS: C07K014-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 18 OF 50 USPATFULL
AN 2002:66639 USPATFULL
TI Compositions comprising heat shock proteins or alpha(2) macroglobulin, antigenic molecules and saponins, and methods of use thereof
IN Armen, Garo H., Manhasset, NY, UNITED STATES
PI US 2002037290 A1 20020328
AI US 2001-909778 A1 20010720 (9)
PRAI US 2000-223133P 20000807 (60)
DT Utility
FS APPLICATION
LN.CNT 4136
INCL INCLM: 424/178.100
INCLS: 514/012.000; 514/026.000
NCL NCLM: 424/178.100
NCLS: 514/012.000; 514/026.000
IC [7]
ICM: A61K039-395
ICS: A61K038-17
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 19 OF 50 USPATFULL
AN 2002:297296 USPATFULL
TI Methods for inhibition of membrane fusion-associated events, including respiratory syncytial virus transmission
IN Bolognesi, Dani Paul, Durham, NC, United States
Matthews, Thomas James, Durham, NC, United States
Wild, Carl T., Durham, NC, United States
Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
Langlois, Alphonse J., Durham, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6479055 B1 20021112
AI US 1995-470896 19950606 (8)
RLI Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS GRANTED
LN.CNT 26553
INCL INCLM: 424/211.100
INCLS: 424/186.100; 530/324.000
NCL NCLM: 424/211.100
NCLS: 424/186.100; 530/324.000
IC [7]
ICM: A61K039-145
EXF 435/5; 435/240.2; 424/184.1-189.1; 424/204.1-211.1; 424/225.1; 424/227.1; 424/230.1; 514/1; 514/2; 530/324; 530/350; 530/826
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 20 OF 50 USPATFULL
AN 2002:136555 USPATFULL
TI Methods of **modulating** an immune response to antigen, and cells for use in the method
IN Segal, Andrew H., Boston, MA, United States
PA Whitehead Institute for Biomedical Research, Cambridge, MA, United States (U.S. corporation)
PI US 6403080 B1 20020611
AI US 1999-339523 19990624 (9)
RLI Division of Ser. No. US 1997-826259, filed on 27 Mar 1997, now patented, Pat. No. US 5951976
PRAI US 1996-14364P 19960328 (60)
DT Utility
FS GRANTED

LN.CNT 2153
INCL INCLM: 424/093.100
INCLS: 424/093.200; 424/093.210; 424/093.700; 424/093.710; 424/136.100; 435/325.000; 514/002.000; 514/012.000; 530/387.300
NCL NCLM: 424/093.100
NCLS: 424/093.200; 424/093.210; 424/093.700; 424/093.710; 424/136.100; 435/325.000; 514/002.000; 514/012.000; 530/387.300
IC [7]
ICM: A01N063-00
ICS: A61K039-395; A61K038-00; C12P021-08
EXF 424/93.21; 424/93.7; 424/93.1; 424/93.2; 424/93.71; 424/136.1; 435/325; 514/12; 514/21; 530/387.3
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 21 OF 50 USPATFULL
AN 2002:19393 USPATFULL
TI Secreted protein HLHFP03
IN Rosen, Craig A., Laytonsville, MD, United States
Ruben, Steven M., Olney, MD, United States
Olsen, Henrik S., Gaithersburg, MD, United States
Ebner, Reinhard, Gaithersburg, MD, United States
PA Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)
PI US 6342581 B1 20020129
AI US 1999-227357 19990108 (9)
RLI Continuation-in-part of Ser. No. WO 1998-US13684, filed on 7 Jul 1998
PRAI US 1997-58785P 19970912 (60)
US 1997-58664P 19970912 (60)
US 1997-58660P 19970912 (60)
US 1997-58661P 19970912 (60)
US 1997-55722P 19970818 (60)
US 1997-55723P 19970818 (60)
US 1997-55948P 19970818 (60)
US 1997-55949P 19970818 (60)
US 1997-55953P 19970818 (60)
US 1997-55950P 19970818 (60)
US 1997-55947P 19970818 (60)
US 1997-55964P 19970818 (60)
US 1997-56360P 19970818 (60)
US 1997-55684P 19970818 (60)
US 1997-55984P 19970818 (60)
US 1997-55954P 19970818 (60)
US 1997-51926P 19970708 (60)
US 1997-52793P 19970708 (60)
US 1997-51925P 19970708 (60)
US 1997-51929P 19970708 (60)
US 1997-52803P 19970708 (60)
US 1997-52732P 19970708 (60)
US 1997-51931P 19970708 (60)
US 1997-51932P 19970708 (60)
US 1997-51916P 19970708 (60)
US 1997-51930P 19970708 (60)
US 1997-51918P 19970708 (60)
US 1997-51920P 19970708 (60)
US 1997-52733P 19970708 (60)
US 1997-52795P 19970708 (60)
US 1997-51919P 19970708 (60)
US 1997-51928P 19970708 (60)
DT Utility
FS GRANTED
LN.CNT 18742
INCL INCLM: 530/300.000
INCLS: 530/350.000; 435/069.100
NCL NCLM: 530/300.000
NCLS: 435/069.100; 530/350.000
IC [7]
ICM: A61K038-00
ICS: C07K001-00; C12P021-06
EXF 530/300; 530/350; 435/69.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 22 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2002:840857 CAPLUS
TI The cytoplasmic domain of the LDL receptor-related protein regulates multiple steps in APP processing
AU Pietrzik, Claus U.; Busse, Tracy; Merriam, David E.; Weggen, Sascha; Koo, Edward H.
CS Department of Neurosciences, University of California, San Diego, La Jolla, CA, 92093, USA
SO EMBO Journal (2002), 21(21), 5691-5700
CODEN: EMJODG; ISSN: 0261-4189
PB Oxford University Press
DT Journal
LA English
RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 23 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2001:886449 CAPLUS
DN 136:36328
TI **Alpha 2 macroglobulin receptors** as a heat shock protein receptor and uses thereof
IN Srivastava, Pramod K.
PA University of Connecticut Health Center, USA
SO PCT Int. Appl., 236 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001092474	A1	20011206	WO 2001-US18041	20010604
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI US 2000-209095P	P	20000602		
US 2000-625137	A	20000725		
US 2000-668724	A	20000922		
US 2000-750972	A	20001228		

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 24 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2001:763235 CAPLUS
DN 135:314399
TI Detection of variations in the DNA methylation profile of genes in the determining the risk of disease
IN Berlin, Kurt; Piepenbrock, Christian; Olek, Alexander
PA Epigenomics A.-G., Germany
SO PCT Int. Appl., 636 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 68

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001077373	A2	20011018	WO 2001-DE1486	20010406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,				

LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
DE 10019058 A1 20011220 DE 2000-10019058 20000406
WO 2001077373 A2 20011018 WO 2001-XA1486 20010406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
CF, CG, CI, CM, GA, GW, ML, MR, NE, SN, TD, TG
WO 2001077373 A2 20011018 WO 2001-XB1486 20010406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
CF, CG, CI, CM, GA, GW, ML, MR, NE, SN, TD, TG
EP 1274865 A2 20030115 EP 2001-953936 20010406
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
EP 1278892 A1 20030129 EP 2001-940158 20010406
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI DE 2000-10019058 A 20000406
DE 2000-10019173 A 20000407
DE 2000-10032529 A 20000630
DE 2000-10043826 A 20000901
WO 2001-DE1486 W 20010406
WO 2001-EP3969 W 20010406

L18 ANSWER 25 OF 50 USPATFULL
AN 2001:188694 USPATFULL
TI Suppression of inhibitors
IN Brunner, Niels, Virum, Denmark
Romer, John, Copenhagen, Denmark
Ellis, Vincent, Woodford Green, Great Britain
Pyke, Charles, Copenhagen, Denmark
Grondahl-Hansen, Jan, Holte, Denmark
Pappot, Helle Pedersen, Allerod, Denmark
Hansen, Heine Hoi, Holte, Denmark
Dano, Keld, Charlottenlund, Denmark
PI US 2001034327 A1 20011025
AI US 2001-836323 A1 20010418 (9)
RLI Division of Ser. No. US 1996-583129, filed on 15 May 1996, GRANTED, Pat. No. US 6224865 A 371 of International Ser. No. WO 1994-DK288, filed on 18 Jul 1994, UNKNOWN
PRAI DK 1993-851 19930716
DT Utility
FS APPLICATION
LN.CNT 2247
INCL INCLM: 514/012.000
INCLS: 435/007.230
NCL NCLM: 514/012.000
NCLS: 435/007.230
IC [7]
ICM: G01N033-574
ICS: A61K038-55
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 26 OF 50 USPATFULL
AN 2001:235236 USPATFULL
TI Useful properties of human lactoferrin and variants thereof
IN Nuijens, Jan, Heiloo, Netherlands
van Berkel, Patrick, Delft, Netherlands
PA Pharming, Leiden, Netherlands (non-U.S. corporation)
PI US 6333311 B1 20011225
AI US 1998-17043 19980202 (9)
PRAI US 1997-36859P 19970203 (60)
DT Utility
FS GRANTED
LN.CNT 2033
INCL INCLM: 514/012.000
INCLS: 514/002.000
NCL NCLM: 514/012.000
NCLS: 514/002.000
IC [7]
ICM: A61K038-40
EXF 514/12.2
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 27 OF 50 USPATFULL
AN 2001:125760 USPATFULL
TI O-fucosyltransferase
IN Wang, Yang, Milbrae, CA, United States
Spellman, Michael W., Belmont, CA, United States
PA Genentech, Inc., South San Francisco, CA, United States (U.S. corporation)
PI US 6270987 B1 20010807
AI US 1999-333729 19990615 (9)
RLI Division of Ser. No. US 1997-978741, filed on 26 Nov 1997, now patented, Pat. No. US 6100076, issued on 8 Aug 2000 Continuation-in-part of Ser. No. US 1997-792498, filed on 31 Jan 1997, now abandoned
DT Utility
FS GRANTED
LN.CNT 3080
INCL INCLM: 435/068.100
INCLS: 435/015.000; 435/053.000; 435/041.000; 435/072.000; 435/097.000; 435/193.000; 435/200.000
NCL NCLM: 435/068.100
NCLS: 435/015.000; 435/041.000; 435/053.000; 435/072.000; 435/097.000; 435/193.000; 435/200.000
IC [7]
ICM: C12N009-00
ICS: C12N009-10
EXF 435/15; 435/68.1; 435/53; 435/41; 435/72; 435/97; 435/193; 435/200
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 28 OF 50 USPATFULL
AN 2001:79294 USPATFULL
TI Nucleic acids encoding human calcium sensor protein
IN Akerstrom, Goran, Uppsala, Sweden
Juhlin, Claes, Uppsala, Sweden
Rask, Lars, Uppsala, Sweden
Hjalm, Goran, Uppsala, Sweden
Morse, Clarence C., Royersford, PA, United States
Murray, Edward M., Drexel Hill, PA, United States
Crumley, Gregg R., Philadelphia, PA, United States
PA Rhone-Poulenc Rorer S.A., Antony, France (non-U.S. corporation)
PI US 6239270 B1 20010529
AI US 1995-476515 19950607 (8)

RLI Continuation-in-part of Ser. No. US 1994-344836, filed on 23 Nov 1994, now abandoned Continuation-in-part of Ser. No. WO 1994-SE483, filed on 24 May 1994
PRAI SE 1993-1764 19930524
DT Utility
FS Granted
LN.CNT 1058
INCL INCLM: 536/024.300
INCLS: 514/044.000; 536/024.100
NCL NCLM: 536/024.300
NCLS: 536/024.100
IC [7]
ICM: A61K031-7105
ICS: A61K031-711; C07H021-04
EXF 514/44; 536/24.1; 536/24.3
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 29 OF 50 USPATFULL
AN 2001:79131 USPATFULL
TI Family of protease inhibitors, and other biologic active substances
IN Voerman, Gerard, Brasschaat, Belgium
PA Clodica, S.A., Luxembourg, Luxembourg (non-U.S. corporation)
PI US 6239106 B1 20010529
WO 9613585 19960509
AI US 1998-836686 • 19980327 (8)
WO 1995-EP4223 19951027
19980327 PCT 371 date
19980327 PCT 102(e) date
PRAI EP 1994-117053 19941028
EP 1995-103637 19950314
DT Utility
FS Granted
LN.CNT 813
INCL INCLM: 514/013.000
INCLS: 435/212.000; 435/213.000; 435/214.000; 435/215.000; 435/216.000; 435/217.000; 435/218.000; 435/219.000; 435/069.100; 435/252.300; 435/320.100; 536/023.200; 530/324.000; 530/350.000
NCL NCLM: 514/013.000
NCLS: 435/069.100; 435/212.000; 435/213.000; 435/214.000; 435/215.000; 435/216.000; 435/217.000; 435/218.000; 435/219.000; 435/252.300; 435/320.100; 530/324.000; 530/350.000; 536/023.200
IC [7]
ICM: A61K038-00
ICS: C12N009-48; C12N001-20; C07H021-04
EXF 514/13; 435/212-219; 435/69.1; 435/252.3; 435/320.1; 536/23.2; 530/324; 530/350
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 30 OF 50 USPATFULL
AN 2001:67794 USPATFULL
TI Human respiratory syncytial virus **peptides** with antifusogenic and antiviral activities
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6228983 B1 20010508
AI US 1995-485264 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995
Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994
Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994
Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 32166
INCL INCLM: 530/300.000
INCLS: 530/324.000; 530/325.000; 530/326.000; 424/211.100; 424/186.100
NCL NCLM: 530/300.000
NCLS: 424/186.100; 424/211.100; 530/324.000; 530/325.000; 530/326.000
IC [7]
ICM: A61K038-00
EXF 530/350; 530/324-329; 530/300; 424/211.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 31 OF 50 USPATFULL
AN 2001:63243 USPATFULL
TI Suppression of inhibitors
IN Brunner, Nils, Hellerup, Denmark
R.o slashed.mer, John, Copenhagen, Denmark
Ellis, Vincent, Woodford Green, United Kingdom
Pyke, Charles, Hiller.o slashed.d, Denmark
Gr.o slashed.ndahl-Hansen, Jan, Holte, Denmark
Pedersen, Helle, Aller.o slashed.d, Denmark
Hansen, Heine H.o slashed.i, Holte, Denmark
Dan.o slashed. , Keld, Charlottenlund, Denmark
PA Cancerforskningsfonden AF 1989, Copenhagen K, Denmark (non-U.S. corporation)
PI US 6224865 B1 20010501
WO 9502413 19950126
AI US 1996-583129 19960515 (8)
WO 1994-DK288 19940718
19960515 PCT 371 date
19960515 PCT 102(e) date
PRAI DK 1993-851 19930716
DT Utility
FS Granted
LN.CNT 2471
INCL INCLM: 424/130.100
INCLS: 421/138.100; 421/141.100; 421/145.100; 421/155.100; 421/152.100; 421/158.100; 421/172.100; 421/179.100; 421/181.100; 421/183.100; 514/002.000
NCL NCLM: 424/130.100
NCLS: 424/138.100; 424/141.100; 424/145.100; 424/152.100; 424/155.100; 424/158.100; 424/172.100; 424/179.100; 424/181.100; 424/183.100; 514/002.000
IC [7]
ICM: A61K039-395
ICS: A01N037-18
EXF 424/152.1; 424/141.1; 424/145.1; 424/155.1; 424/130.1; 424/138.1; 424/158.1; 424/172.1; 424/179.1; 424/181.1; 424/183.1; 514/2
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 32 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2001:708596 CAPLUS
DN 136:116223
TI Apolipoprotein E and apolipoprotein E receptors **modulate** A.beta.-induced glial neuroinflammatory responses
AU LaDu, M. J.; Shah, J. A.; Reardon, C. A.; Getz, G. S.; Bu, G.; Hu, J.; Guo, L.; Van Eldik, L. J.
CS Department of Medicine, Evanston Northwestern Healthcare Research Institute, Evanston, IL, 60201, USA
SO Neurochemistry International (2001), 39(5-6), 427-434
CODEN: NEUIDS; ISSN: 0197-0186
PB Elsevier Science Ltd.
DT Journal; General Review
LA English
RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 33 OF 50 USPATFULL
AN 2000:102422 USPATFULL
TI Parasitic helminth p22U nucleic acid molecules
IN Tripp, Cynthia Ann, Ft. Collins, CO, United States
Frank, Glenn Robert, Ft. Collins, CO, United States
Grieve, Robert B., Ft. Collins, CO, United States
PA Heska Corporation, Ft. Collins, CO, United States (U.S. corporation)
Colorado State University Research Foundation, Ft. Collins, CO, United States (U.S. corporation)
PI US 6100390 20000808
AI US 1995-458860 19950602 (8)
RLI Continuation of Ser. No. US 1993-109391, filed on 19 Aug 1993, now patented, Pat. No. US 5639876 which is a continuation of Ser. No. US 1993-3257, filed on 12 Jan 1993, now abandoned Ser. No. Ser. No. US 1993-3389, filed on 12 Jan 1993 And Ser. No. US 1991-654226, filed on 12 Feb 1991 , said Ser. No. US 3257 And Ser. No. US 3389 which is a continuation-in-part of Ser. No. US 654226
DT Utility
FS Granted
LN.CNT 2469
INCL INCLM: 536/023.700
INCLS: 435/069.100; 435/069.300; 435/071.100; 536/022.100; 536/023.100; 536/024.320
NCL NCLM: 536/023.700
NCLS: 435/069.100; 435/069.300; 435/071.100; 536/022.100; 536/023.100; 536/024.320
IC [7]
ICM: C07H021-04
ICS: C07H021-02; C12P021-06; C12P071-04
EXF 536/22.1; 536/24.32; 536/23.1; 536/23.7; 435/69.1; 435/69.3; 435/71.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 34 OF 50 USPATFULL
AN 2000:102109 USPATFULL
TI O-fucosyltransferase
IN Wang, Yang, Milbrae, CA, United States
Spellman, Michael W., Belmont, CA, United States
PA Genentech, Inc., South San Francisco, CA, United States (U.S. corporation)
PI US 6100076 20000808
AI US 1997-978741 19971126 (8)
RLI Continuation-in-part of Ser. No. US 1997-792498, filed on 31 Jan 1997, now abandoned
DT Utility
FS Granted
LN.CNT 3438
INCL INCLM: 435/193.000
NCL NCLM: 435/193.000
IC [7]
ICM: C12N009-10
EXF 435/193
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 35 OF 50 USPATFULL
AN 2000:95093 USPATFULL
TI Isolated **peptides** derived from the Epstein-Barr virus containing fusion inhibitory domains
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6093794 20000725
AI US 1995-471913 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 19949
INCL INCLM: 530/300.000
INCLS: 530/324.000; 530/325.000; 530/326.000; 530/350.000; 424/186.100; 424/230.100
NCL NCLM: 530/300.000
NCLS: 424/186.100; 424/230.100; 530/324.000; 530/325.000; 530/326.000; 530/350.000
IC [7]
ICM: A61K038-00
ICS: A61K039-12; A61K039-245
EXF 530/324; 530/388.3; 530/388.85; 530/389.4; 435/5; 424/147.1; 424/230.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 36 OF 50 USPATFULL
AN 2000:67564 USPATFULL
TI Methods for inhibition of membrane fusion-associated events, including influenza virus
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6068973 20000530
AI US 1995-485551 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 12021
INCL INCLM: 435/005.000
INCLS: 530/324.000; 530/389.400; 424/147.100; 424/230.100; 424/206.100
NCL NCLM: 435/005.000
NCLS: 424/147.100; 424/206.100; 424/230.100; 530/324.000; 530/389.400
IC [7]
ICM: C12Q001-70
ICS: A61K038-00; A61K039-42; C07K016-00
EXF 530/324; 530/389.4; 435/5; 424/147.1; 424/230.1; 424/206.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 37 OF 50 USPATFULL
AN 2000:57361 USPATFULL
TI Compositions for inhibition of membrane fusion-associated events, including influenza virus transmission
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
Duke University, Durham, NC, United States (U.S. corporation)
PI US 6060065 20000509
AI US 1995-475668 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 19987

INCL INCLM: 424/209.100
INCLS: 424/186.100; 424/192.100; 424/206.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000; 530/327.000; 530/328.000; 530/329.000; 530/330.000
NCL NCLM: 424/209.100
NCLS: 424/186.100; 424/192.100; 424/206.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000; 530/327.000; 530/328.000; 530/329.000; 530/330.000
IC [7]
ICM: A61K039-145
ICS: A61K039-12; A61K039-00; A61K038-00
EXF 424/209.1; 424/186.1; 424/192.1; 424/206.1; 530/300; 530/324; 530/325; 530/326; 530/327; 530/328; 530/329; 530/330
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 38 OF 50 USPATFULL
AN 2000:50515 USPATFULL
TI Screening assays for compounds that inhibit membrane fusion-associated events
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Jr., Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6054265 20000425
AI US 1997-919597 19970926 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 21307
INCL INCLM: 435/005.000
INCLS: 435/007.200
NCL NCLM: 435/005.000
NCLS: 435/007.200
IC [7]
ICM: C12Q001-70
EXF 435/5; 435/7.2
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 39 OF 50 USPATFULL
AN 2000:12922 USPATFULL
TI Isolated **peptides** derived from human immunodeficiency virus types 1 and 2 containing fusion inhibitory domains
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6020459 20000201
AI US 1995-484223 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 20335
INCL INCLM: 530/300.000
INCLS: 530/324.000; 530/325.000; 530/326.000; 530/350.000; 424/188.100
NCL NCLM: 530/300.000
NCLS: 530/324.000; 530/325.000; 530/326.000; 530/350.000; 424/188.100
IC [6]
ICM: A61K038-00
ICS: A61K039-21
EXF 530/300; 530/317; 530/324
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 40 OF 50 USPATFULL
AN 2000:9527 USPATFULL
TI Simian immunodeficiency virus **peptides** with antifusogenic and antiviral activities
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
Langlois, Alphonse J., Durham, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6017536 20000125
AI US 1994-360107 19941220 (8)
RLI Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 20227
INCL INCLM: 424/188.100
INCLS: 424/208.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
NCL NCLM: 424/188.100
NCLS: 424/208.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
IC [6]
ICM: A61K039-21
EXF 530/300; 530/324; 424/184.1; 424/188.1; 424/208.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 41 OF 50 USPATFULL
AN 2000:4427 USPATFULL
TI Measles virus **peptides** with antifusogenic and antiviral activities
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6013263 20000111
AI US 1995-486099 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 Ser. No. Ser. No. US 1994-255208, filed on 7 Jun 1994 And Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
FS Granted
LN.CNT 19827
INCL INCLM: 424/212.100
INCLS: 530/300.000; 530/324.000; 530/325.000; 530/326.000; 424/184.100; 424/186.100
NCL NCLM: 424/212.100
NCLS: 424/184.100; 424/186.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
IC [6]
ICM: A61K039-165
EXF 530/300; 530/324; 424/212.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 42 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2000:185820 CAPLUS
DN 132:306738
TI **Modulation** of .beta.-amyloid precursor protein processing by the low density lipoprotein receptor-related protein (LRP). Evidence that LRP contributes to the pathogenesis of Alzheimer's disease

AU Ulery, Paula G.; Beers, Jeanette; Mikhailenko, Irina; Tanzi, Rudolph E.; Rebeck, G. William; Hyman, Bradley T.; Strickland, Dudley K.
CS Department of Vascular Biology, Holland Laboratory, American Red Cross, Rockville, MD, 20855, USA
SO Journal of Biological Chemistry (2000), 275(10), 7410-7415
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 43 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 2000:798983 CAPLUS
DN 134:54948
TI **Modulation** of amyloid .beta.-protein clearance and Alzheimer's disease susceptibility by the LDL receptor-related protein pathway
AU Kang, David E.; Pietrzik, Claus U.; Baum, Larry; Chevallier, Nathalie; Merriam, David E.; Kounnas, Maria Z.; Wagner, Steven L.; Troncoso, Juan C.; Kawas, Claudia H.; Katzman, Robert; Koo, Edward H.
CS Department of Neurosciences, University of California, San Diego, La Jolla, CA, 92093, USA
SO Journal of Clinical Investigation (2000), 106(9), 1159-1166
CODEN: JCINAO; ISSN: 0021-9738
PB American Society for Clinical Investigation
DT Journal
LA English
RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 44 OF 50 CAPLUS COPYRIGHT 2003 ACS
AN 1999:640888 CAPLUS
DN 131:270950
TI Immune response **modulator** alpha-2 macroglobulin complex
IN Pizzo, Salvatore V.; Gron, Hanne
PA Duke University, USA
SO PCT Int. Appl., 103 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9950303	A2	19991007	WO 1999-US7236	19990401
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6403092	B1	20020611	US 1999-282826	19990331
AU 9934639	A1	19991018	AU 1999-34639	19990401
AU 754988	B2	20021128		
EP 1068242	A2	20010117	EP 1999-916288	19990401
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE, FI				
PRAI US 1998-53301	A	19980401		
US 1999-282826	A	19990331		
WO 1999-US7236	W	19990401		

L18 ANSWER 45 OF 50 USPATFULL
AN 1999:141305 USPATFULL
TI Adjuvant for transcutaneous immunization
IN Glenn, Gregory M., Bethesda, MD, United States
Alving, Carl R., Bethesda, MD, United States
PA The United States of America as represented by the U.S. Army Medical Research & Material Command, Washington, DC, United States (U.S. government)
PI US 5980898 19991109
AI US 1997-896085 19970717 (8)
RLI Continuation-in-part of Ser. No. US 1996-749164, filed on 14 Nov 1996
DT Utility
FS Granted
LN.CNT 1988
INCL INCLM: 424/184.100
INCLS: 424/449.000; 424/450.000; 424/236.000; 424/240.100; 424/241.100; 424/275.100; 530/363.000; 530/403.000
NCL NCLM: 424/184.100
NCLS: 424/085.100; 424/240.100; 424/241.100; 424/275.100; 424/449.000; 424/450.000; 530/363.000; 530/403.000
IC [6]
ICM: A61K039-00
ICS: C07K014-005; C07K014-195
EXF 424/449; 424/450; 424/184.1; 424/236; 424/240.1; 424/241.1; 424/275.1; 530/363; 530/403
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 46 OF 50 USPATFULL
AN 1999:92501 USPATFULL
TI Genes mapping in the digeorge and velocardiofacial syndrome minimal critical region
IN Gong, Weilong, Philadelphia, PA, United States
Emanuel, Beverly S., Broomall, PA, United States
Budarf, Marcia L., Moylan, PA, United States
Roe, Bruce, Norman, OK, United States
PA Children's Hospital of Philadelphia, Philadelphia, PA, United States (U.S. corporation)
University of Oklahoma, Norman, OK, United States (U.S. corporation)
PI US 5935783 19990810
AI US 1996-775009 19961227 (8)
RLI Continuation-in-part of Ser. No. US 1996-717400, filed on 20 Sep 1996, now abandoned
PRAI US 1995-4033P 19950920 (60)
DT Utility
FS Granted
LN.CNT 2131
INCL INCLM: 435/006.000
INCLS: 435/091.200; 536/023.500; 536/024.310
NCL NCLM: 435/006.000
NCLS: 435/091.200; 536/023.500; 536/024.310
IC [6]
ICM: C07H021-04
ICS: C12N015-12; C12P019-34; C12Q001-68
EXF 536/23.1; 536/24.3; 536/24.31; 536/24.33; 435/6; 435/91.1; 435/91.2
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 47 OF 50 USPATFULL
AN 1999:67356 USPATFULL
TI Parasitic helminth p22U proteins
IN Tripp, Cynthia Ann, Ft. Collins, CO, United States
Frank, Glenn Robert, Ft. Collins, CO, United States
Grieve, Robert B., Ft. Collins, CO, United States
PA Heska Corporation, Ft. Collins, CO, United States (U.S. corporation)
Colorado State University Research Foundation, Ft. Collins, CO, United States (U.S. corporation)
PI US 5912337 19990615
AI US 1995-460428 19950602 (8)
RLI Continuation of Ser. No. US 1993-109391, filed on 19 Aug 1993, now patented, Pat. No. US 5639876 which is a continuation-in-part of Ser.

No. US 1993-3257, filed on 12 Jan 1993, now abandoned Ser. No. Ser. No. US 1993-3389, filed on 12 Jan 1993, now abandoned And Ser. No. US 1991-654226, filed on 12 Feb 1991, now abandoned , said Ser. No. US 3257 which is a continuation-in-part of Ser. No. US 654226 , said Ser. No. US 3389 which is a continuation-in-part of Ser. No. US 654226

DT Utility
FS Granted
LN.CNT 2357
INCL INCLM: 536/023.700
INCLS: 424/184.100; 424/185.100; 424/265.100; 530/350.000; 550/387.100
NCL NCLM: 536/023.700
NCLS: 424/184.100; 424/185.100; 424/265.100; 435/007.220; 530/350.000; 530/387.100
IC [6]
ICM: C07H021-04
ICS: A61K039-00
EXF 424/184.1; 424/185.1; 424/265.1; 530/350; 530/300; 550/380; 550/387.1; 550/388.2; 536/23.7
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 48 OF 50 USPATFULL
AN 97:104113 USPATFULL
TI Parasitic helminth p4 proteins
IN Tripp, Cynthia Ann, Ft. Collins, CO, United States
Frank, Glenn Robert, Ft. Collins, CO, United States
Grieve, Robert B., Ft. Collins, CO, United States
PA Heska Corporation, Ft. Collins, CO, United States (U.S. corporation)
Colorado State University Research Foundation, Ft. Collins, CO, United States (U.S. corporation)
PI US 5686080 19971111
AI US 1995-459019 19950602 (8)
RLI Continuation of Ser. No. US 1993-109391, filed on 19 Aug 1993, now patented, Pat. No. US 5639876 which is a continuation-in-part of Ser. No. US 1993-3257, filed on 12 Jan 1993, now abandoned Ser. No. Ser. No. US 1993-3389, filed on 12 Jan 1993, now abandoned And Ser. No. US 1991-654226, filed on 12 Feb 1991, now abandoned , said Ser. No. US -3257 And Ser. No. US -3389 , each Ser. No. US - which is a continuation-in-part of Ser. No. US -654226
DT Utility
FS Granted
LN.CNT 2279
INCL INCLM: 424/265.100
INCLS: 424/154.100; 424/185.100; 424/266.100; 530/350.000; 435/069.100; 435/069.300; 435/071.100
NCL NCLM: 424/265.100
NCLS: 424/184.100; 424/185.100; 424/266.100; 435/069.100; 435/069.300; 435/071.100; 530/350.000
IC [6]
ICM: A61K039-00
ICS: A61K039-002; A61K039-38; C07K014-00
EXF 530/350; 530/300; 424/265.1; 424/266.1; 424/184.1; 424/185.1; 435/69.1; 435/69.3; 435/71.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 49 OF 50 USPATFULL
AN 97:52122 USPATFULL
TI Nucleic acid molecules encoding novel parasitic helminth proteins
IN Tripp, Cynthia Ann, Ft. Collins, CO, United States
Frank, Glenn Robert, Ft. Collins, CO, United States
Grieve, Robert B., Ft. Collins, CO, United States
PA Heska Corporation, Ft. Collins, CO, United States (U.S. corporation)
Colorado State University Research Foundation, Ft. Collins, CO, United States (U.S. corporation)
PI US 5639876 19970617
AI US 1993-109391 19930819 (8)
RLI Continuation-in-part of Ser. No. US 1993-3257, filed on 12 Jan 1993, now abandoned Ser. No. Ser. No. US 1993-3389, filed on 12 Jan 1993, now abandoned And Ser. No. US 1991-654226, filed on 12 Feb 1991, now abandoned , said Ser. No. US -3257 And Ser. No. US -3389 , each Ser. No. US - which is a continuation-in-part of Ser. No. US -654226
DT Utility
FS Granted
LN.CNT 2327
INCL INCLM: 536/023.700
INCLS: 536/022.100; 536/023.100; 435/069.100; 435/069.300; 435/071.100; 424/184.100; 424/185.100; 424/265.100; 424/266.100
NCL NCLM: 536/023.700
NCLS: 424/184.100; 424/185.100; 424/265.100; 424/266.100; 435/069.100; 435/069.300; 435/071.100; 536/022.100; 536/023.100
IC [6]
ICM: C07H019-00
ICS: C07H021-04; C12P021-04; A61K039-00
EXF 536/27; 536/22.1; 536/23.1; 536/23.7; 424/265.1; 424/269.1; 424/184.1; 424/185.1; 424/165.1; 424/266.1; 435/69.1; 435/69.3; 435/71.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 50 OF 50 MEDLINE
AN 94365030 MEDLINE
DN 94365030 PubMed ID: 8083232
TI The 39-kDa receptor-associated protein regulates ligand binding by the very low density lipoprotein receptor.
AU Battey F D; Gafvels M E; FitzGerald D J; Argraves W S; Chappell D A; Strauss J F 3rd; Strickland D K
CS Holland Laboratory, Department of Biochemistry, American Red Cross, Rockville, Maryland 20855.
NC GM42581 (NIGMS)
HL49264 (NHLBI)
HL50787 (NHLBI)
+
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1994 Sep 16) 269 (37) 23268-73.
Journal code: 2985121R. ISSN: 0021-9258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199410
ED Entered STN: 19941021
Last Updated on STN: 19941021
Entered Medline: 19941011

=>
=> d his

(FILE 'HOME' ENTERED AT 15:25:49 ON 20 FEB 2003)

FILE 'MEDLINE, CANCERLIT, BIOSIS, CONFSCI, EMBASE, CAPLUS, USPATFULL' ENTERED AT 15:26:27 ON 20 FEB 2003
L1 72563 S HEAT (A) SHOCK (A) PROTEIN
L2 40 S L1 AND ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L3 33 DUP REM L2 (7 DUPLICATES REMOVED)
L4 12721 S L1 AND ANTIBOD?
L5 21 S L4 AND L2
L6 19 DUP REM L5 (2 DUPLICATES REMOVED)
L7 1585 S AGONIST? AND L1
L8 4 S L7 AND L2
L9 8637 S L1 AND PEPTIDE?
L10 27 S L9 AND L2
L11 24 DUP REM L10 (3 DUPLICATES REMOVED)
L12 11 S L11 AND MODULATE?

```
L13        1624 S ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L14         160 S L13 AND MODULAT?
L15         110 DUP REM L14 (50 DUPLICATES REMOVED)
L16          14 S L15 AND HEAT (A) SHOCK (A) PROTEIN
L17          50 S L14 AND PEPTID?
L18          50 DUP REM L17 (0 DUPLICATES REMOVED)

=> s l14 and antibod?
L19          71 L14 AND ANTIBOD?

=> dup rem l19
PROCESSING COMPLETED FOR L19
L20          60 DUP REM L19 (11 DUPLICATES REMOVED)

=> d l20 not py=>2000
'NOT' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files.  Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):exit
'EXIT' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files.  Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):bye
'BYE' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files.  Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):stop
'STOP' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files.  Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):end

=> s l20 not py=>2000
'2000' NOT A VALID FIELD CODE
L21          13 L20 NOT PY=>2000

=> d 1-13

L21  ANSWER 1 OF 13     MEDLINE
AN   97156866     MEDLINE
DN   97156866   PubMed ID: 9003247
TI   Modulation of the alpha 2
     macroglobulin receptor/low density lipoprotein receptor
     related protein by interferon-gamma in human astroglial cells.
AU   Businaro R; Fabrizi C; Persichini T; Starace G; Ennas M G; Fumagalli L;
     Lauro G M
CS   Dipartimento di Scienze Cardiovascolari e Respiratorie, Universita La
     Sapienza, Rome, Italy.
SO   JOURNAL OF NEUROIMMUNOLOGY, (1997 Jan) 72 (1) 75-81.
     Journal code: 8109498. ISSN: 0165-5728.
CY   Netherlands
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
OS   GENBANK-X55077
EM   199702
ED   Entered STN: 19970305
     Last Updated on STN: 19970305
     Entered Medline: 19970219

L21  ANSWER 2 OF 13     MEDLINE
AN   95072001     MEDLINE
DN   95072001   PubMed ID: 7526898
TI   Presence of LDL receptor-related protein/alpha 2-
     macroglobulin receptors in macrophages of
     atherosclerotic lesions from cholesterol-fed New Zealand and heterozygous
     Watanabe heritable hyperlipidemic rabbits.
AU   Daugherty A; Rateri D L
CS   Cardiovascular Division, Washington University School of Medicine, St.
     Louis, MO 63110.
NC   HL-17646 (NHLBI)
SO   ARTERIOSCLEROSIS AND THROMBOSIS, (1994 Dec) 14 (12) 2017-24.
     Journal code: 9101388. ISSN: 1049-8834.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
EM   199412
ED   Entered STN: 19950116
     Last Updated on STN: 19960129
     Entered Medline: 19941230

L21  ANSWER 3 OF 13     MEDLINE
AN   94144688     MEDLINE
DN   94144688   PubMed ID: 7508685
TI   Expression of alpha 2-macroglobulin
     receptor/low density lipoprotein receptor-related protein and the
     39-kd receptor-associated protein in human trophoblasts.
AU   Coukos G; Gafvels M E; Wisel S; Ruelaz E A; Strickland D K; Strauss J F
     3rd; Coutifaris C
CS   Department of Obstetrics and Gynecology, University of Pennsylvania School
     of Medicine, Philadelphia.
NC   GM-42581 (NIGMS)
     HD-29946 (NICHD)
SO   AMERICAN JOURNAL OF PATHOLOGY, (1994 Feb) 144 (2) 383-92.
     Journal code: 0370502. ISSN: 0002-9440.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Abridged Index Medicus Journals; Priority Journals
EM   199403
ED   Entered STN: 19940330
     Last Updated on STN: 19960129
     Entered Medline: 19940317

L21  ANSWER 4 OF 13     MEDLINE
AN   92366474     MEDLINE
DN   92366474   PubMed ID: 1502154
TI   Low density lipoprotein receptor-related protein/alpha 2
     -macroglobulin receptor is an hepatic receptor for
     tissue-type plasminogen activator.
AU   Bu G; Williams S; Strickland D K; Schwartz A L
CS   Edward Mallinckrodt Department of Pediatrics, Washington University School
     of Medicine, St. Louis, MO 63110.
NC   HL08467 (NHLBI)
     HL17646 (NHLBI)
SO   PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
     AMERICA, (1992 Aug 15) 89 (16) 7427-31.
     Journal code: 7505876. ISSN: 0027-8424.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
```

FS Priority Journals
EM 199209
ED Entered STN: 19920925
Last Updated on STN: 19980206
Entered Medline: 19920915

L21 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2003 ACS
AN 1999:180032 CAPLUS
DN 131:13513
TI Do P-glycoprotein and major vault protein (MVP/LRP) expression correlate with in vitro daunorubicin resistance in acute myeloid leukemia?
AU Broxterman, H. J.; Sonneveld, P.; Pieters, R.; Lankelma, J.; Eekman, C. A.; Loonen, A. H.; Schoester, M.; Ossenkoppele, G. J.; Lowenberg, B.; Pinedo, H. M.; Schuurhuis, G. J.
CS Department of Medical Oncology, University Hospital Vrije Universiteit, Amsterdam, 1007 MB, Neth.
SO Leukemia (1999), 13(2), 258-265
CODEN: LEUKED; ISSN: 0887-6924
PB Stockton Press
DT Journal
LA English
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2003 ACS
AN 1997:188130 CAPLUS
DN 126:275326
TI Low density lipoprotein receptor-related protein **modulates** the expression of tissue-type plasminogen activator in human colon fibroblasts
AU Hardy, Medora M.; Feder, Joseph; Wolfe, Richard A.; Bu, Guojun
CS Dep. of Cell Culture and Biochemistry, Monsanto Co., St. Louis, MO, 63167, USA
SO Journal of Biological Chemistry (1997), 272(10), 6812-6817
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English

L21 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2003 ACS
AN 1997:82858 CAPLUS
DN 126:169578
TI The low-density lipoprotein receptor-related protein, a multifunctional apolipoprotein E receptor, **modulates** hippocampal neurite development
AU Narita, Masaaki; Bu, Guojun; Holtzman, David M.; Schwartz, Alan L.
CS Department of Pediatrics, Washington University School of Medicine, St. Louis, MO, 63110, USA
SO Journal of Neurochemistry (1997), 68(2), 587-595
CODEN: JONRA9; ISSN: 0022-3042
PB Lippincott-Raven
DT Journal
LA English

L21 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2003 ACS
AN 1996:717281 CAPLUS
DN 126:29495
TI Apolipoprotein E-containing high density lipoprotein promotes neurite outgrowth and is a ligand for the low density lipoprotein receptor-related protein
AU Fagan, Anne M.; Bu, Guojun; Sun, Yuling; Daugherty, Alan; Holtzman, David M.
CS Dep. Neurology, Washington Univ. School Medicine, St. Louis, MO, 63110, USA
SO Journal of Biological Chemistry (1996), 271(47), 30121-30125
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English

L21 ANSWER 9 OF 13 USPATFULL
AN 1999:141305 USPATFULL
TI Adjuvant for transcutaneous immunization
IN Glenn, Gregory M., Bethesda, MD, United States
Alving, Carl R., Bethesda, MD, United States
PA The United States of America as represented by the U.S. Army Medical Research & Material Command, Washington, DC, United States (U.S. government)
PI US 5980898 19991109
AI US 1997-896085 19970717 (8)
RLI Continuation-in-part of Ser. No. US 1996-749164, filed on 14 Nov 1996
DT Utility
FS Granted
LN.CNT 1988
INCL INCLM: 424/184.100
INCLS: 424/449.000; 424/450.000; 424/236.000; 424/240.100; 424/241.100; 424/275.100; 530/363.000; 530/403.000
NCL NCLM: 424/184.100
NCLS: 424/085.100; 424/240.100; 424/241.100; 424/275.100; 424/449.000; 424/450.000; 530/363.000; 530/403.000
IC [6]
ICM: A61K039-00
ICS: C07K014-005; C07K014-195
EXF 424/449; 424/450; 424/184.1; 424/236; 424/240.1; 424/241.1; 424/275.1; 530/363; 530/403
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 10 OF 13 USPATFULL
AN 1999:67356 USPATFULL
TI Parasitic helminth p22U proteins
IN Tripp, Cynthia Ann, Ft. Collins, CO, United States
Frank, Glenn Robert, Ft. Collins, CO, United States
Grieve, Robert B., Ft. Collins, CO, United States
PA Heska Corporation, Ft. Collins, CO, United States (U.S. corporation)
Colorado State University Research Foundation, Ft. Collins, CO, United States (U.S. corporation)
PI US 5912337 19990615
AI US 1995-460428 19950602 (8)
RLI Continuation of Ser. No. US 1993-109391, filed on 19 Aug 1993, now patented, Pat. No. US 5639876 which is a continuation-in-part of Ser. No. US 1993-3257, filed on 12 Jan 1993, now abandoned Ser. No. Ser. No. US 1993-3389, filed on 12 Jan 1993, now abandoned And Ser. No. US 1991-654226, filed on 12 Feb 1991, now abandoned , said Ser. No. US 3257 which is a continuation-in-part of Ser. No. US 654226 , said Ser. No. US 3389 which is a continuation-in-part of Ser. No. US 654226
DT Utility
FS Granted
LN.CNT 2357
INCL INCLM: 536/023.700
INCLS: 424/184.100; 424/185.100; 424/265.100; 530/350.000; 550/387.100
NCL NCLM: 536/023.700
NCLS: 424/184.100; 424/185.100; 424/265.100; 435/007.220; 530/350.000; 530/387.100
IC [6]
ICM: C07H021-04
ICS: A61K039-00
EXF 424/184.1; 424/185.1; 424/265.1; 530/350; 530/300; 550/380; 550/387.1; 550/388.2; 536/23.7
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 11 OF 13 USPATFULL

```
AN      1998:30893  USPATFULL
TI      Non-mammalian DNA virus to express an exogenous gene in a mammalian cell
IN      Boyce, Frederick M., Belmont, MA, United States
PA      The General Hospital Corporation, Boston, MA, United States (U.S.
        corporation)
PI      US 5731182              19980324
AI      US 1995-486341          19950607 (8)
RLI     Continuation-in-part of Ser. No. US 1994-311157, filed on 23 Sep 1994
DT      Utility
FS      Granted
LN.CNT 1730
INCL    INCLM: 435/183.000
        INCLS: 435/320.100; 435/069.100; 435/070.100
NCL     NCLM:  435/183.000
        NCLS:  435/069.100; 435/070.100; 435/320.100
IC      [6]
        ICM: C12N009-00
        ICS: C12N015-63; C12P021-02
EXF     435/183; 435/183T; 435/320.1; 435/69.1; 435/70.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21  ANSWER 12 OF 13  USPATFULL
AN      97:104113  USPATFULL
TI      Parasitic helminth p4 proteins
IN      Tripp, Cynthia Ann, Ft. Collins, CO, United States
        Frank, Glenn Robert, Ft. Collins, CO, United States
        Grieve, Robert B., Ft. Collins, CO, United States
PA      Heska Corporation, Ft. Collins, CO, United States (U.S. corporation)
        Colorado State University Research Foundation, Ft. Collins, CO, United
        States (U.S. corporation)
PI      US 5686080              19971111
AI      US 1995-459019          19950602 (8)
RLI     Continuation of Ser. No. US 1993-109391, filed on 19 Aug 1993, now
        patented, Pat. No. US 5639876 which is a continuation-in-part of Ser.
        No. US 1993-3257, filed on 12 Jan 1993, now abandoned Ser. No. Ser. No.
        US 1993-3389, filed on 12 Jan 1993, now abandoned And Ser. No. US
        1991-654226, filed on 12 Feb 1991, now abandoned , said Ser. No. US
        -3257 And Ser. No. US   -3389 , each Ser. No. US   - which is a
        continuation-in-part of Ser. No. US   -654226
DT      Utility
FS      Granted
LN.CNT 2279
INCL    INCLM: 424/265.100
        INCLS: 424/154.100; 424/185.100; 424/266.100; 530/350.000;.435/069.100;
               435/069.300; 435/071.100
NCL     NCLM:  424/265.100
        NCLS:  424/184.100; 424/185.100; 424/266.100; 435/069.100; 435/069.300;
               435/071.100; 530/350.000
IC      [6]
        ICM: A61K039-00
        ICS: A61K039-002; A61K039-38; C07K014-00
EXF     530/350; 530/300; 424/265.1; 424/266.1; 424/184.1; 424/185.1; 435/69.1;
        435/69.3; 435/71.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21  ANSWER 13 OF 13  USPATFULL
AN      97:52122  USPATFULL
TI      Nucleic acid molecules encoding novel parasitic helminth proteins
IN      Tripp, Cynthia Ann, Ft. Collins, CO, United States
        Frank, Glenn Robert, Ft. Collins, CO, United States
        Grieve, Robert B., Ft. Collins, CO, United States
PA      Heska Corporation, Ft. Collins, CO, United States (U.S. corporation)
        Colorado State University Research Foundation, Ft. Collins, CO, United
        States (U.S. corporation)
PI      US 5639876              19970617
AI      US 1993-109391          19930819 (8)
RLI     Continuation-in-part of Ser. No. US 1993-3257, filed on 12 Jan 1993, now
        abandoned Ser. No. Ser. No. US 1993-3389, filed on 12 Jan 1993, now
        abandoned And Ser. No. US 1991-654226, filed on 12 Feb 1991, now
        abandoned , said Ser. No. US   -3257 And Ser. No. US   -3389 , each Ser.
        No. US   - which is a continuation-in-part of Ser. No. US   -654226
DT      Utility
FS      Granted
LN.CNT 2327
INCL    INCLM: 536/023.700
        INCLS: 536/022.100; 536/023.100; 435/069.100; 435/069.300; 435/071.100;
               424/184.100; 424/185.100; 424/265.100; 424/266.100
NCL     NCLM:  536/023.700
        NCLS:  424/184.100; 424/185.100; 424/265.100; 424/266.100; 435/069.100;
               435/069.300; 435/071.100; 536/022.100; 536/023.100
IC      [6]
        ICM: C07H019-00
        ICS: C07H021-04; C12P021-04; A61K039-00
EXF     536/27; 536/22.1; 536/23.1; 536/23.7; 424/265.1; 424/269.1; 424/184.1;
        424/185.1; 424/165.1; 424/266.1; 435/69.1; 435/69.3; 435/71.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


=> d his

     (FILE 'HOME' ENTERED AT 15:25:49 ON 20 FEB 2003)

     FILE 'MEDLINE, CANCERLIT, BIOSIS, CONFSCI, EMBASE, CAPLUS, USPATFULL'
     ENTERED AT 15:26:27 ON 20 FEB 2003
L1        72563 S HEAT (A) SHOCK (A) PROTEIN
L2           40 S L1 AND ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L3           33 DUP REM L2 (7 DUPLICATES REMOVED)
L4        12721 S L1 AND ANTIBOD?
L5           21 S L4 AND L2
L6           19 DUP REM L5 (2 DUPLICATES REMOVED)
L7         1585 S AGONIST? AND L1
L8            4 S L7 AND L2
L9         8637 S L1 AND PEPTIDE?
L10          27 S L9 AND L2
L11          24 DUP REM L10 (3 DUPLICATES REMOVED)
L12          11 S L11 AND MODULATE?
L13        1624 S ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L14         160 S L13 AND MODULAT?
L15         110 DUP REM L14 (50 DUPLICATES REMOVED)
L16          14 S L15 AND HEAT (A) SHOCK (A) PROTEIN
L17          50 S L14 AND PEPTID?
L18          50 DUP REM L17 (0 DUPLICATES REMOVED)
L19          71 S L14 AND ANTIBOD?
L20          60 DUP REM L19 (11 DUPLICATES REMOVED)
L21          13 S L20 NOT PY=>2000

=> s l14 and TPA
L22           7 L14 AND TPA

=> d 1-7

L22  ANSWER 1 OF 7  USPATFULL
AN      2003:37187  USPATFULL
TI      Anionic liposomes for delivery of bioactive agents
IN      Lakkaraju, Aparna, Minneapolis, MN, UNITED STATES
        Dubinsky, Janet M., St. Paul, MN, UNITED STATES
        Low, Walter, Shorewood, MN, UNITED STATES
        Rahman, Yueh-Erh, LaJolla, CA, UNITED STATES
PI      US 2003026831       A1   20030206
AI      US 2002-131786      A1   20020422 (10)
```

PRAI US 2001-285337P 20010420 (60)
DT Utility
FS APPLICATION
LN.CNT 3617
INCL INCLM: 424/450.000
NCL NCLM: 424/450.000
IC [7]
ICM: A61K009-127

L22 ANSWER 2 OF 7 USPATFULL
AN 2003:30238 USPATFULL
TI Secreted protein HLHFP03
IN Fischer, Carrie L., Burke, VA, UNITED STATES
Rosen, Craig A., Laytonsville, MD, UNITED STATES
Soppet, Daniel R., Centreville, VA, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES
Kyaw, Hla, Frederick, MD, UNITED STATES
Li, Yi, Sunnyvale, CA, UNITED STATES
Zeng, Zhizhen, Lansdale, PA, UNITED STATES
LaFleur, David W., Washington, DC, UNITED STATES
Moore, Paul A., Germantown, MD, UNITED STATES
Shi, Yanggu, Gaithersburg, MD, UNITED STATES
Olsen, Henrik S., Gaithersburg, MD, UNITED STATES
Ebner, Reinhard, Gaithersburg, MD, UNITED STATES
Brewer, Laurie A., St. Paul, MN, UNITED STATES
PI US 2003022185 A1 20030130
AI US 2001-983802 A1 20011025 (9)
RLI Continuation of Ser. No. US 1999-227357, filed on 8 Jan 1999, GRANTED, Pat. No. US 6342581 Continuation-in-part of Ser. No. WO 1998-US13684, filed on 7 Jul 1998, UNKNOWN
PRAI US 1997-51926P 19970708 (60)
US 1997-52793P 19970708 (60)
US 1997-51925P 19970708 (60)
US 1997-51929P 19970708 (60)
US 1997-52803P 19970708 (60)
US 1997-52732P 19970708 (60)
US 1997-51931P 19970708 (60)
US 1997-51932P 19970708 (60)
US 1997-51916P 19970708 (60)
US 1997-51930P 19970708 (60)
US 1997-51918P 19970708 (60)
US 1997-51920P 19970708 (60)
US 1997-52733P 19970708 (60)
US 1997-52795P 19970708 (60)
US 1997-51919P 19970708 (60)
US 1997-51928P 19970708 (60)
US 1997-55722P 19970818 (60)
US 1997-55723P 19970818 (60)
US 1997-55948P 19970818 (60)
US 1997-55949P 19970818 (60)
US 1997-55953P 19970818 (60)
US 1997-55950P 19970818 (60)
US 1997-55947P 19970818 (60)
US 1997-55964P 19970818 (60)
US 1997-56360P 19970818 (60)
US 1997-55684P 19970818 (60)
US 1997-55984P 19970818 (60)
US 1997-55954P 19970818 (60)
US 1997-58785P 19970912 (60)
US 1997-58664P 19970912 (60)
US 1997-58660P 19970912 (60)
US 1997-58661P 19970912 (60)
DT Utility
FS APPLICATION
LN.CNT 19390
INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/325.000; 435/320.100; 435/183.000; 536/023.200
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/325.000; 435/320.100; 435/183.000; 536/023.200
IC [7]
ICM: C12Q001-68
ICS: C07H021-04; C12N009-00; C12P021-02; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 3 OF 7 USPATFULL
AN 2002:19393 USPATFULL
TI Secreted protein HLHFP03
IN Rosen, Craig A., Laytonsville, MD, United States
Ruben, Steven M., Olney, MD, United States
Olsen, Henrik S., Gaithersburg, MD, United States
Ebner, Reinhard, Gaithersburg, MD, United States
PA Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)
PI US 6342581 B1 20020129
AI US 1999-227357 19990108 (9)
RLI Continuation-in-part of Ser. No. WO 1998-US13684, filed on 7 Jul 1998
PRAI US 1997-58785P 19970912 (60)
US 1997-58664P 19970912 (60)
US 1997-58660P 19970912 (60)
US 1997-58661P 19970912 (60)
US 1997-55722P 19970818 (60)
US 1997-55723P 19970818 (60)
US 1997-55948P 19970818 (60)
US 1997-55949P 19970818 (60)
US 1997-55953P 19970818 (60)
US 1997-55950P 19970818 (60)
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US 1997-51925P 19970708 (60)
US 1997-51929P 19970708 (60)
US 1997-52803P 19970708 (60)
US 1997-52732P 19970708 (60)
US 1997-51931P 19970708 (60)
US 1997-51932P 19970708 (60)
US 1997-51916P 19970708 (60)
US 1997-51930P 19970708 (60)
US 1997-51918P 19970708 (60)
US 1997-51920P 19970708 (60)
US 1997-52733P 19970708 (60)
US 1997-52795P 19970708 (60)
US 1997-51919P 19970708 (60)
US 1997-51928P 19970708 (60)
DT Utility
FS GRANTED
LN.CNT 18742
INCL INCLM: 530/300.000
INCLS: 530/350.000; 435/069.100
NCL NCLM: 530/300.000
NCLS: 435/069.100; 530/350.000
IC [7]
ICM: A61K038-00
ICS: C07K001-00; C12P021-06
EXF 530/300; 530/350; 435/69.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L22  ANSWER 4 OF 7  USPATFULL
AN     2001:188694  USPATFULL
TI     Suppression of inhibitors
IN     Brunner, Niels, Virum, Denmark
       Romer, John, Copenhagen, Denmark
       Ellis, Vincent, Woodford Green, Great Britain
       Pyke, Charles, Copenhagen, Denmark
       Grondahl-Hansen, Jan, Holte, Denmark
       Pappot, Helle Pedersen, Allerod, Denmark
       Hansen, Heine Hoi, Holte, Denmark
       Dano, Keld, Charlottenlund, Denmark
PI     US 2001034327      A1   20011025
AI     US 2001-836323     A1   20010418 (9)
RLI    Division of Ser. No. US 1996-583129, filed on 15 May 1996, GRANTED, Pat.
       No. US 6224865 A 371 of International Ser. No. WO 1994-DK288, filed on
       18 Jul 1994, UNKNOWN
PRAI   DK 1993-851         19930716
DT     Utility
FS     APPLICATION
LN.CNT 2247
INCL   INCLM: 514/012.000
       INCLS: 435/007.230
NCL    NCLM:  514/012.000
       NCLS:  435/007.230
IC     [7]
       ICM: G01N033-574
       ICS: A61K038-55
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22  ANSWER 5 OF 7  USPATFULL
AN     2001:125760  USPATFULL
TI     O-fucosyltransferase
IN     Wang, Yang, Milbrae, CA, United States
       Spellman, Michael W., Belmont, CA, United States
PA     Genentech, Inc., South San Francisco, CA, United States (U.S.
       corporation)
PI     US 6270987       B1   20010807
AI     US 1999-333729         19990615 (9)
RLI    Division of Ser. No. US 1997-978741, filed on 26 Nov 1997, now patented,
       Pat. No. US 6100076, issued on 8 Aug 2000 Continuation-in-part of Ser.
       No. US 1997-792498, filed on 31 Jan 1997, now abandoned
DT     Utility
FS     GRANTED
LN.CNT 3080
INCL   INCLM: 435/068.100
       INCLS: 435/015.000; 435/053.000; 435/041.000; 435/072.000; 435/097.000;
              435/193.000; 435/200.000
NCL    NCLM:  435/068.100
       NCLS:  435/015.000; 435/041.000; 435/053.000; 435/072.000; 435/097.000;
              435/193.000; 435/200.000
IC     [7]
       ICM: C12N009-00
       ICS: C12N009-10
EXF    435/15; 435/68.1; 435/53; 435/41; 435/72; 435/97; 435/193; 435/200
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22  ANSWER 6 OF 7  USPATFULL
AN     2001:63243  USPATFULL
TI     Suppression of inhibitors
IN     Brunner, Nils, Hellerup, Denmark
       R.o slashed.mer, John, Copenhagen, Denmark
       Ellis, Vincent, Woodford Green, United Kingdom
       Pyke, Charles, Hiller.o slashed.d, Denmark
       Gr.o slashed.ndahl-Hansen, Jan, Holte, Denmark
       Pedersen, Helle, Aller.o slashed.d, Denmark
       Hansen, Heine H.o slashed.i, Holte, Denmark
       Dan.o slashed. , Keld, Charlottenlund, Denmark
PA     Cancerforskningsfonden AF 1989, Copenhagen K, Denmark (non-U.S.
       corporation)
PI     US 6224865         B1   20010501
       WO 9502413  19950126
AI     US 1996-583129           19960515 (8)
       WO 1994-DK288            19940718
                                19960515  PCT 371 date
                                19960515  PCT 102(e) date
PRAI   DK 1993-851         19930716
DT     Utility
FS     Granted
LN.CNT 2471
INCL   INCLM: 424/130.100
       INCLS: 421/138.100; 421/141.100; 421/145.100; 421/155.100; 421/152.100;
              421/158.100; 421/172.100; 421/179.100; 421/181.100; 421/183.100;
              514/002.000
NCL    NCLM:  424/130.100
       NCLS:  424/138.100; 424/141.100; 424/145.100; 424/152.100; 424/155.100;
              424/158.100; 424/172.100; 424/179.100; 424/181.100; 424/183.100;
              514/002.000
IC     [7]
       ICM: A61K039-395
       ICS: A01N037-18
EXF    424/152.1; 424/141.1; 424/145.1; 424/155.1; 424/130.1; 424/138.1;
       424/158.1; 424/172.1; 424/179.1; 424/181.1; 424/183.1; 514/2
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22  ANSWER 7 OF 7  USPATFULL
AN     2000:102109  USPATFULL
TI     O-fucosyltransferase
IN     Wang, Yang, Milbrae, CA, United States
       Spellman, Michael W., Belmont, CA, United States
PA     Genentech, Inc., South San Francisco, CA, United States (U.S.
       corporation)
PI     US 6100076               20000808
AI     US 1997-978741           19971126 (8)
RLI    Continuation-in-part of Ser. No. US 1997-792498, filed on 31 Jan 1997,
       now abandoned
DT     Utility
FS     Granted
LN.CNT 3438
INCL   INCLM: 435/193.000
NCL    NCLM:  435/193.000
IC     [7]
       ICM: C12N009-10
EXF    435/193
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


=> d his

     (FILE 'HOME' ENTERED AT 15:25:49 ON 20 FEB 2003)

     FILE 'MEDLINE, CANCERLIT, BIOSIS, CONFSCI, EMBASE, CAPLUS, USPATFULL'
     ENTERED AT 15:26:27 ON 20 FEB 2003
L1         72563 S HEAT (A) SHOCK (A) PROTEIN
L2            40 S L1 AND ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L3            33 DUP REM L2 (7 DUPLICATES REMOVED)
L4         12721 S L1 AND ANTIBOD?
L5            21 S L4 AND L2
L6            19 DUP REM L5 (2 DUPLICATES REMOVED)
L7          1585 S AGONIST? AND L1
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L8            4 S L7 AND L2
L9         8637 S L1 AND PEPTIDE?
L10          27 S L9 AND L2
L11          24 DUP REM L10 (3 DUPLICATES REMOVED)
L12          11 S L11 AND MODULATE?
L13        1624 S ALPHA (A) 2 (A) MACROGLOBULIN (A) RECEPTOR
L14         160 S L13 AND MODULAT?
L15         110 DUP REM L14 (50 DUPLICATES REMOVED)
L16          14 S L15 AND HEAT (A) SHOCK (A) PROTEIN
L17          50 S L14 AND PEPTID?
L18          50 DUP REM L17 (0 DUPLICATES REMOVED)
L19          71 S L14 AND ANTIBOD?
L20          60 DUP REM L19 (11 DUPLICATES REMOVED)
L21          13 S L20 NOT PY=>2000
L22           7 S L14 AND TPA

=> s l14 and tissue (a) type (a) plasminogen (a) activator
L23          11 L14 AND TISSUE (A) TYPE (A) PLASMINOGEN (A) ACTIVATOR

=> dup rem l23
PROCESSING COMPLETED FOR L23
L24           7 DUP REM L23 (4 DUPLICATES REMOVED)

=> d 1-7

L24  ANSWER 1 OF 7  USPATFULL
AN     2003:37603  USPATFULL
TI     Human cDNAs and proteins and uses thereof
IN     Bejanin, Stephane, Paris, FRANCE
       Tanaka, Hiroaki, Antony, FRANCE
PA     GENSET, S.A., Paris, FRANCE, 75008 (non-U.S. corporation)
PI     US 2003027248      A1   20030206
AI     US 2001-924340     A1   20010806 (9)
PRAI   US 2001-305456P     20010713 (60)
       US 2001-302277P     20010629 (60)
       US 2001-298698P     20010615 (60)
       US 2001-293574P     20010525 (60)
DT     Utility
FS     APPLICATION
LN.CNT 25650
INCL   INCLM: 435/069.100
       INCLS: 435/183.000; 435/320.100; 435/325.000; 530/350.000; 536/023.200;
              435/006.000
NCL    NCLM:  435/069.100
       NCLS:  435/183.000; 435/320.100; 435/325.000; 530/350.000; 536/023.200;
              435/006.000
IC     [7]
       ICM: C12P021-02
       ICS: C12Q001-68; C07H021-04; C12N009-00; C12N005-06

L24  ANSWER 2 OF 7  USPATFULL
AN     2003:37516  USPATFULL
TI     Human cDNAs and proteins and uses thereof
IN     Bejanin, Stephane, Paris, FRANCE
       Tanaka, Hiroaki, Antony, FRANCE
PA     GENSET, S.A., Paris, FRANCE, 75008 (non-U.S. corporation)
PI     US 2003027161      A1   20030206
AI     US 2001-992600     A1   20011113 (9)
RLI    Division of Ser. No. US 2001-924340, filed on 6 Aug 2001, PENDING
PRAI   WO 2001-IB1715      20010806
       US 2001-305456P     20010713 (60)
       US 2001-302277P     20010629 (60)
       US 2001-298698P     20010615 (60)
       US 2001-293574P     20010525 (60)
DT     Utility
FS     APPLICATION
LN.CNT 25529
INCL   INCLM: 435/006.000
       INCLS: 435/069.100; 435/183.000; 435/320.100; 435/325.000; 530/350.000;
              536/023.200; 800/008.000
NCL    NCLM:  435/006.000
       NCLS:  435/069.100; 435/183.000; 435/320.100; 435/325.000; 530/350.000;
              536/023.200; 800/008.000
IC     [7]
       ICM: C12Q001-68
       ICS: A01K067-00; C07H021-04; C12N009-00; C12P021-02; C12N005-06

L24  ANSWER 3 OF 7  CAPLUS  COPYRIGHT 2003 ACS
AN     2001:886449  CAPLUS
DN     136:36328
TI     Alpha 2 macroglobulin receptors as
       a heat shock protein receptor and uses thereof
IN     Srivastava, Pramod K.
PA     University of Connecticut Health Center, USA
SO     PCT Int. Appl., 236 pp.
       CODEN: PIXXD2
DT     Patent
LA     English
FAN.CNT 1
       PATENT NO.         KIND  DATE           APPLICATION NO.   DATE
       ---------------    ----  --------       ---------------   --------
PI     WO 2001092474      A1    20011206       WO 2001-US18041   20010604
           W:  AU, CA, JP
           RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
               PT, SE, TR
PRAI   US 2000-209095P    P     20000602
       US 2000-625137     A     20000725
       US 2000-668724     A     20000922
       US 2000-750972     A     20001228
RE.CNT  1      THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24  ANSWER 4 OF 7  USPATFULL
AN     2001:188694  USPATFULL
TI     Suppression of inhibitors
IN     Brunner, Niels, Virum, Denmark
       Romer, John, Copenhagen, Denmark
       Ellis, Vincent, Woodford Green, Great Britain
       Pyke, Charles, Copenhagen, Denmark
       Grondahl-Hansen, Jan, Holte, Denmark
       Pappot, Helle Pedersen, Allerod, Denmark
       Hansen, Heine Hoi, Holte, Denmark
       Dano, Keld, Charlottenlund, Denmark
PI     US 2001034327      A1   20011025
AI     US 2001-836323     A1   20010418 (9)
RLI    Division of Ser. No. US 1996-583129, filed on 15 May 1996, GRANTED, Pat.
       No. US 6224865 A 371 of International Ser. No. WO 1994-DK288, filed on
       18 Jul 1994, UNKNOWN
PRAI   DK 1993-851          19930716
DT     Utility
FS     APPLICATION
LN.CNT 2247
INCL   INCLM: 514/012.000
       INCLS: 435/007.230
NCL    NCLM:  514/012.000
       NCLS:  435/007.230
IC     [7]
       ICM: G01N033-574
       ICS: A61K038-55
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
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L24 ANSWER 5 OF 7 USPATFULL
AN 2001:63243 USPATFULL
TI Suppression of inhibitors
IN Brunner, Nils, Hellerup, Denmark
R.o slashed.mer, John, Copenhagen, Denmark
Ellis, Vincent, Woodford Green, United Kingdom
Pyke, Charles, Hiller.o slashed.d, Denmark
Gr.o slashed.ndahl-Hansen, Jan, Holte, Denmark
Pedersen, Helle, Aller.o slashed.d, Denmark
Hansen, Heine H.o slashed.i, Holte, Denmark
Dan.o slashed. , Keld, Charlottenlund, Denmark
PA Cancerforskningsfonden AF 1989, Copenhagen K, Denmark (non-U.S. corporation)
PI US 6224865 B1 20010501
WO 9502413 19950126
AI US 1996-583129 19960515 (8)
WO 1994-DK288 19940718
19960515 PCT 371 date
19960515 PCT 102(e) date
PRAI DK 1993-851 19930716
DT Utility
FS Granted
LN.CNT 2471
INCL INCLM: 424/130.100
INCLS: 421/138.100; 421/141.100; 421/145.100; 421/155.100; 421/152.100; 421/158.100; 421/172.100; 421/179.100; 421/181.100; 421/183.100; 514/002.000
NCL NCLM: 424/130.100
NCLS: 424/138.100; 424/141.100; 424/145.100; 424/152.100; 424/155.100; 424/158.100; 424/172.100; 424/179.100; 424/181.100; 424/183.100; 514/002.000
IC [7]
ICM: A61K039-395
ICS: A01N037-18
EXF 424/152.1; 424/141.1; 424/145.1; 424/155.1; 424/130.1; 424/138.1; 424/158.1; 424/172.1; 424/179.1; 424/181.1; 424/183.1; 514/2
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L24 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2003 ACS
AN 1997:188130 CAPLUS
DN 126:275326
TI Low density lipoprotein receptor-related protein **modulates** the expression of **tissue-type plasminogen activator** in human colon fibroblasts
AU Hardy, Medora M.; Feder, Joseph; Wolfe, Richard A.; Bu, Guojun
CS Dep. of Cell Culture and Biochemistry, Monsanto Co., St. Louis, MO, 63167, USA
SO Journal of Biological Chemistry (1997), 272(10), 6812-6817
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English

L24 ANSWER 7 OF 7 MEDLINE DUPLICATE 1
AN 92366474 MEDLINE
DN 92366474 PubMed ID: 1502154
TI Low density lipoprotein receptor-related protein/**alpha 2 -macroglobulin receptor** is an hepatic receptor for **tissue-type plasminogen activator**.
AU Bu G; Williams S; Strickland D K; Schwartz A L
CS Edward Mallinckrodt Department of Pediatrics, Washington University School of Medicine, St. Louis, MO 63110.
NC HL08467 (NHLBI)
HL17646 (NHLBI)
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1992 Aug 15) 89 (16) 7427-31.
Journal code: 7505876. ISSN: 0027-8424.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199209
ED Entered STN: 19920925
Last Updated on STN: 19980206
Entered Medline: 19920915

=>

---Logging off of STN---

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☐ 1: Exp Cell Res 1999 Sep 15;251(2):433-41 Related Articles, Links

ELSEVIER SCIENCE FULL-TEXT ARTICLE

Characterization of the soluble form of the low density lipoprotein receptor-related protein (LRP).

Quinn KA, Pye VJ, Dai YP, Chesterman CN, Owensby DA.

Centre for Thrombosis and Vascular Research, School of Pathology, Kensington, New South Wales, 2052, Australia. k.quinn@unsw.edu.au

We report characterization of the soluble form of the low density lipoprotein receptor-related protein (sLRP) which circulates in human plasma. Amino acid sequence analysis confirmed that sLRP isolated from human plasma contains the alpha-chain of LRP1. In addition, Western blot analysis identified a truncated beta-chain noncovalently associated with the purified alpha-chain. The molecular size (M(r) 55K) of the peptide portion of the truncated beta-chain indicates that the subunit comprises the extracellular portion of the beta-chain and terminates in a membrane-proximal region. We investigated the mechanism by which sLRP may be generated using the trophoblast cell line, BeWo, which releases sLRP in culture. Cell surface labeling experiments indicate that LRP is released from BeWo cells following expression at the cell surface. Incubation of BeWo cells in the presence of a metalloproteinase inhibitor, INH-3855-PI, results in a dose-dependent inhibition of LRP shedding. The metalloproteinase responsible for the shedding of LRP by BeWo cells is not up-regulated by phorbol ester and is not dependent on serine proteases, such as plasmin, for activity. The BeWo cell line is derived from a human gestational choriocarcinoma and preliminary studies suggest that LRP may be shed within the placenta during gestation. Increased levels of sLRP were detected in cord blood. In term placenta, LRP is expressed in the syncytium, which comprises the maternal-fetal interface. Increased levels of sLRP in cord blood may reflect cellular dysfunction and increased metalloproteinase activity at this important interface. Copyright 1999 Academic Press.

PMID: 10471328 [PubMed - indexed for MEDLINE]

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PubMed Nucleotide Protein Genome Structure PMC Taxonomy OMIM Bc

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1: Circulation 1997 Jan 7;95(1):46-52 Related Articles, Links

FREE full text article at circ.ahajournals.org

Antagonists of the mannose receptor and the LDL receptor-related protein dramatically delay the clearance of tissue plasminogen activator.

Biessen EA, van Teijlingen M, Vietsch H, Barrett-Bergshoeff MM, Bijsterbosch MK, Rijken DC, van Berkel TJ, Kuiper J.

Division of Biopharmaceutics, Leiden/Amsterdam Center for Drug Research, University of Leiden, The Netherlands.

BACKGROUND: Clinical application of tissue plasminogen activator (TPA) as a fibrinolytic agent is complicated by its rapid clearance from the bloodstream, which is caused by TPA liver uptake. The mannose receptor on endothelial liver cells and the LDL receptor-related protein (LRP) on parenchymal liver cells were reported to contribute to liver uptake. METHODS AND RESULTS: In this study, we addressed whether TPA clearance can be delayed by inhibiting receptor-mediated endocytosis of TPA. A series of cluster mannosides was synthesized, and their affinity for the mannose receptor was determined. A cluster mannoside carrying six mannose groups (M6L5) displayed a subnanomolar affinity for the mannose receptor (Ki = 0.41 +/- 0.09 nmol/L). Preinjection of M6L5 (1.2 mg/kg) reduced the clearance of 125I-TPA in rats by 60% because of specific inhibition of the endothelial cell uptake. The low toxicity of M6L5, combined with its accessible synthesis and high specificity for the mannose receptor, makes it a promising agent to improve the pharmacokinetics of TPA. Blockade of LRP by 39-kD receptor-associated protein (GST-RAP) also inhibited TPA clearance by 60%. Finally, combined preinjection of M6L5 and GST-RAP almost completely abolished reduced liver uptake of TPA and delayed its clearance by a factor of 10. CONCLUSIONS: It can be concluded that (1) the mannose receptor and LRP appear to be the sole major receptors responsible for TPA clearance and (2) therapeutic levels of TPA can be maintained for a prolonged time span by coadministration of the aforementioned receptor antagonists.

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Articles

Antagonists of the Mannose Receptor and the LDL Receptor–Related Protein Dramatically Delay the Clearance of Tissue Plasminogen Activator

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Background Clinical application of tissue plasminogen activator (TPA) as a fibrinolytic agent is complicated by its rapid clearance from the bloodstream, which is caused by TPA liver uptake. The mannose receptor on endothelial liver cells and the LDL receptor–related protein (LRP) on parenchymal liver cells were reported to contribute to liver uptake.

Methods and Results In this study, we addressed whether TPA clearance can be delayed by inhibiting receptor-mediated endocytosis of TPA. A series of cluster mannosides was synthesized, and their affinity for the mannose receptor was determined. A cluster mannoside carrying six mannose groups (M_6L_5) displayed a subnanomolar affinity for the mannose receptor (K_i=0.41±0.09 nmol/L). Preinjection of M_6L_5 (1.2 mg/kg) reduced the clearance of ^{125}I-TPA in rats by 60% because of specific inhibition of the endothelial cell uptake. The low toxicity of

M_6L_5, combined with its accessible synthesis and high specificity for the mannose receptor, makes it a promising agent to improve the pharmacokinetics of TPA. Blockade of LRP by 39-kD receptor-associated protein (GST-RAP) also inhibited TPA clearance by 60%. Finally, combined preinjection of M_6L_5 and GST-RAP almost completely abolished reduced liver uptake of TPA and delayed its clearance by a factor of 10.

Conclusions It can be concluded that (1) the mannose receptor and LRP appear to be the sole major receptors responsible for TPA clearance and (2) therapeutic levels of TPA can be maintained for a prolonged time span by coadministration of the aforementioned receptor antagonists.

Key Words: plasminogen activators • thrombolysis • cluster mannoside • GST-RAP

Introduction

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Tissue plasminogen activator is a serine protease that plays a central role in the fibrinolytic system.[1,2] TPA converts plasminogen to plasmin, which degrades blood clot–associated fibrin. The fibrin-specific thrombolytic TPA has proved to be a potent drug in several clinical trials.[3,4,5] Despite its widespread clinical application, the thrombolytic efficacy of TPA is complicated by its rapid clearance from the circulation, and large doses of TPA must be administered.[6,7,8,9,10] The short plasma half-life of TPA (ranging from 1 minute in rats to about 6 minutes in humans) results from a rapid liver uptake of TPA.[6,7,8,9,10,11] In vivo studies on TPA have indicated that at least two different hepatic uptake mechanisms are involved in the clearance of TPA from the circulation, because both parenchymal and endothelial liver cells contribute to the liver uptake of TPA.[7,11,12,13]

The characteristics of the TPA uptake sites on parenchymal and endothelial liver cells differ markedly.[7,12,14] Uptake by endothelial liver cells is mediated by the mannose receptor, which recognizes the mannose-rich oligosaccharide chain at Asn_{117} of TPA.[7,11,12,13] The receptor involved in parenchymal liver cell uptake is not unequivocally identified to date.[7,12,13,15,16,17] In vitro binding studies revealed that TPA may interact with LRP, the asialoglycoprotein receptor,[11] and a novel carbohydrate recognition system.[7,12,13,15,16,17] Warshawsky et al[16] showed that an established LRP antagonist, GST-RAP, reduced the in vivo clearance of TPA. Major efforts have been undertaken to construct TPA variants with prolonged plasma half-lives.[18,19,20,21,22,23,24,25,26] To circumvent endothelial cell uptake of TPA via the mannose receptor, deglycosylated TPA variants were developed, and the clearance of these variants was significantly reduced.[18,19] Alternatively, deletion of the finger and epidermal growth factor domains also resulted in a significant increase of the plasma half-life,[21,22,23,24,25,26] whereas blockade of the active site of TPA (protease domain) only marginally affected the plasma half-life.[12,26] However, the benefit

in overall thrombolytic activity of these variants was often too low to justify further development as a thrombolytic drug.

Therefore, we pursued an alternative approach to improve the pharmacokinetics of TPA. We investigated whether the in vivo half-life of wild-type TPA can be prolonged by blockade of its clearance. We devised and synthesized a series of high-affinity ligands for the mannose receptor. Combination of the developed mannose receptor antagonist with an LRP antagonist reduced the liver uptake of TPA strongly and prolonged the plasma half-life of TPA 10-fold.

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Materials

BSA (fraction V), collagenase (types I and IV), and iodogen were purchased from Sigma Chemical Co [^{125}I]NaI (carrier free) and streptavidin–alkaline phosphatase conjugate were from Amersham. Pronase and DNase I were from Boehringer Mannheim GmbH. Nycodenz was from Nycomed Pharma AS (Oslo, Norway). HEPES was from Merck. Recombinant TPA was from Boehringer Ingelheim GmbH. All other chemicals were of analytic grade. The synthesis of M_6L_5 is described in detail elsewhere.[27]

Production and Isolation of GST-RAP

A plasmid (pGEX) encoding for a fusion protein (GST-RAP) of GST and the 39-kD protein or receptor-associated protein (RAP), which was transformed in *Escherichia coli* (DH5α), was a generous gift of Dr J. Herz (Dallas, Tex). GST-RAP was produced exactly as described.[28] The potency of GST-RAP to displace trypsin-activated ^{125}I-α_2M binding from its receptor was essentially equal to values described in the literature (IC_{50}, 1 nmol/L).

Isolation of Human Mannose Receptor

Human mannose receptor was isolated from human placenta after solubilization with Triton X-100 and subsequently purified by affinity chromatography over mannosylated albumin-sepharose according to Otter et al.[29]

Biotinylation and Radiolabeling of TPA

TPA was dialyzed against 0.1 mol/L $NaHCO_3$ (pH 8.5) and reacted with *N*-hydroxysuccinimide–activated biotin (Zymed Laboratories Inc) at a ratio of 1 mol TPA to 200 mol *N*-hydroxysuccinimide–activated biotin at room temperature for 3 hours. After reaction, the modified protein was dialyzed against 20 mmol/L Tris buffer, pH 7.4, containing 0.01% Tween-80 (vol/vol).

Recombinant TPA was iodinated by the iodogen method as described, and a specific radioactivity of 3500 to 5000 cpm/ng protein was obtained.[7]

Mannose Receptor Binding Assay

Displacement studies of the binding of biotinylated TPA to isolated human mannose receptor were performed according to the procedure of Otter et al.[29] Plates were coated with 100 μL solubilized receptor in loading buffer (pH 7.4) containing 0.02 mol/L Tris-HCl, 5 mmol/L $CaCl_2$, and 0.15 mol/L NaCl at 4°C overnight. Loading buffer supplemented with 0.5% Tween 80 and 0.1% BSA (125 μL) was added for 30 minutes at room temperature to minimize aspecific binding of ligand to the wells. The receptor-coated wells were preincubated with the indicated amounts of competitor for 30 minutes at room temperature. Biotinylated TPA (1.5 nmol/L) was added and incubated for 2 hours at room temperature. Streptavidin–alkaline phosphatase conjugate was added subsequently, and the wells were incubated for 1 hour at room temperature. Next, *p*-nitrophenolphosphate was added, the wells were incubated for 4 hours at 25°C, and finally the absorption at 405 nm was monitored with a microplate reader. Wells were washed three times with 0.5% Tween-80 in loading buffer supplemented with 0.5% Tween and 0.1% BSA after each step of the procedure. Uncoated wells were used as a control for aspecific binding of biotinylated TPA to uncoated wells.

In Vivo Plasma Clearance and Organ Uptake

Twelve-week-old male Wistar rats (225 to 275 g) were anesthetized by injection with 20 mg pentobarbital IP. The abdomen was opened, radiolabeled TPA (600 μg/kg body wt) was injected via the vena penis, and at the indicated times, blood samples (0.3 mL) were taken with heparinized syringes from the vena cava and liver lobules were tied off. The liver uptake of the injected compound was corrected for the radioactivity in plasma in the liver at the time of sampling.[7]

Cell Isolation Procedures

For determination of the contributions of different liver cell types to total liver uptake, rats were anesthetized and injected with ^{125}I-labeled TPA via the vena penis. After 10 minutes, the vena porta was cannulated and a liver perfusion at low temperature (<8°C) was started with Hanks' buffer (supplemented with 10 mmol/L HEPES). Parenchymal liver cells, endothelial liver cells, and Kupffer cells were isolated exactly as described.[7] The contributions of the various liver cell types to total liver uptake were calculated as described.[7] As found for a number of substrates, no loss of cell-bound label and/or formation of acid-soluble radioactivity occurred during the low-temperature cell isolation procedure, leading to a quantitative recovery of radioactivity associated with the isolated liver cells compared with the total liver association. This was checked for each individual liver cell isolation by comparison of the calculated liver association (from the relative contributions of the various cell types) and the determined total liver association.

Toxicity Studies

Rats (Wistar, male, 250 g) were anesthetized with ether, and PBS (500 μL) or M_6L_5 (6.0 mg/kg) in 500 μL PBS was injected in the vena penis. At 2 and 24 hours after injection, blood samples (600 μL) were taken. Serum levels of alanine aminotransferase, aspartate aminotransferase, and γ-glutamyl transferase were determined enzymatically with Boehringer Mannheim SYS-3

BM/Hitachi 747 enzyme kits. Kinetic determination of lactate dehydrogenase activity in serum was determined on an SYS-3 BM/Hitachi 747 with the Boehringer Mannheim LDH kit. After 24 hours, rats were killed and liver, spleen, and kidney were excised, weighed, and analyzed histologically.

Data Analysis

The displacement binding data were analyzed according to a single-site model with a computerized nonlinear fitting program (Prism, GraphPad Software) to calculate the IC_{50} values.[30] The K_i was calculated from the corresponding IC_{50} by the Cheng-Prussoff equation [K_i=IC_{50}/(1+Ligand/K_d)] and assuming the K_d of TPA to be 1.0 nmol/L. Pharmacokinetic studies of TPA clearance were analyzed according to a two-phase exponential decay model using the same program. Clearance (Cl) was calculated from the area under curve (AUC) of the plasma decay and the injected dose of TPA according to the equation Cl=Dose/AUC. The significance of differences between means was tested by unpaired two-way Student's *t* test. Significance of the differences in TPA clearance between control and treated rats was analyzed by one-way ANOVA with a Student-Newman-Keuls multiple-comparison post hoc test (Instat, GraphPad software).

Results

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Mannose Receptor Binding Studies

A series of cluster mannosides on a base of an oligolysine backbone was synthesized[27] (for chemical structure see Fig 1). The cluster mannosides contain an increasing number of mannose residues, and their affinity for the isolated human mannose receptor was tested (Fig 2). All cluster mannosides completely inhibited the binding of biotinylated TPA to the mannose receptor, and the potency to compete for the binding of TPA increased dramatically with increasing mannose valency. From the inhibition curves, the inhibition constants were calculated. It was found that the inhibition constant of M_6L_5 (0.41±0.09 nmol/L), which showed the highest affinity for the mannose receptor, was almost 10^7-fold lower than that of mannose (4.0±0.6 mmol/L).

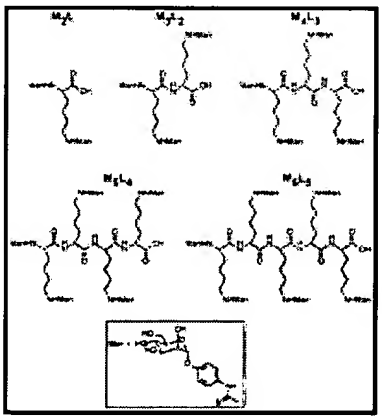

Figure 1. Chemical structures of the synthesized cluster mannosides.

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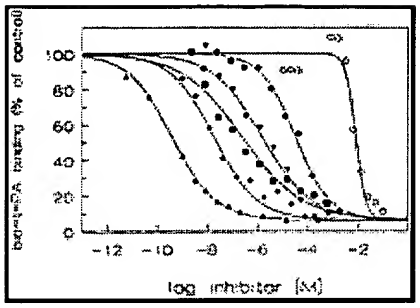

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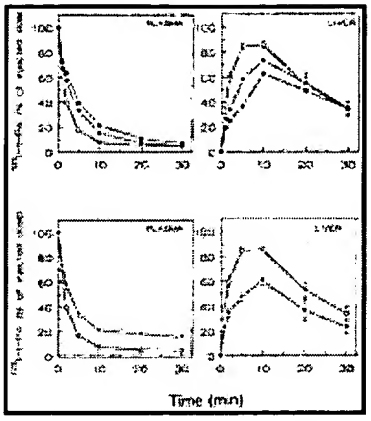
Figure 2. Displacement of binding of biotinylated TPA to the isolated human mannose receptor by cluster mannosides. Competition experiments were performed as follows. Multiwells coated with isolated human mannose receptor were incubated for 2 hours at 25°C with biotinylated TPA (1.5 nmol/L) in the absence or presence of the indicated amount of displacer: mannose (○), M_2L (●), M_3L_2 (▼), M_4L_3 (■), M_5L_4 (♦), and M_6L_5 (▲). Binding of biotinylated TPA is expressed as percentage of the control binding of biotinylated TPA (without displacer).

Effect of M_6L_5 on the Plasma Clearance and Liver Uptake of TPA

Since TPA is in part cleared from plasma via the liver mannose receptor, we determined the effect of the high-affinity ligand for the mannose receptor, M_6L_5, on TPA clearance. In control rats, ^{125}I-TPA (600 μg/kg) was rapidly cleared from the bloodstream ($t_{1/2}$, 1.1±0.1 minutes; Fig 3 ⊡) because of a rapid uptake of TPA by the liver, and a maximum of 86±1.5% of the injected dose was recovered in the liver. Injection of M_6L_5 1 minute before ^{125}I-TPA resulted in a significant and dose-dependent reduction in TPA clearance. At a dose of 0.12 mg M_6L_5/kg, the rate of TPA clearance was reduced by 48% (1.9±0.1 and 3.5±0.2 mL/min for 0.12 mg M_6L_5/kg and controls, respectively; Fig 4⊡), whereas 1.2 mg M_6L_5/kg inhibited the clearance for 59% (1.46±0.07 mL/min). Concomitantly, the liver uptake of TPA was delayed, and the maximal liver uptake was reduced to 73±1% and 62.5±1.0% of the injected dose after preinjection of 0.12 and 1.2 mg M_6L_5/kg, respectively.

Figure 3. Effect of M_6L_5 or GST-RAP on the plasma clearance and liver uptake of ^{125}I-TPA. ^{125}I-TPA (600 μg/kg) was injected intravenously into rats that had been preinjected with 0.12 mg/kg M_6L_5 (top, ●), 1.2 mg/kg M_6L_5 (top, ■), 40 mg/kg GST-RAP (bottom, ▼), or PBS (top and bottom, ○). At the indicated times, radioactivity in plasma and liver was determined. Data points are mean±SEM of three (pretreated rats) or eight (control) experiments.



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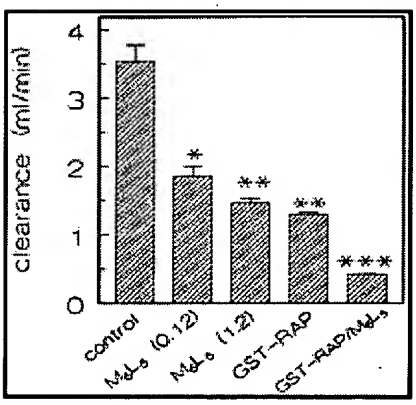

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Figure 4. Effect of mannose receptor and LRP antagonists on the clearance of ^{125}I-TPA. From the plasma clearance data (Figs 3 and 5), TPA clearance (in mL/min) was calculated from the pharmacokinetic parameters area under the curve and injected dose. The level of significance is indicated as $*P<.05$, $**P<.01$, and $***P<.001$.

Effect of GST-RAP on the Plasma Clearance and Liver Uptake of ^{125}I-TPA

To address the involvement of LRP in TPA clearance, we studied the effect of an established antagonist of LRP,[30] GST-RAP, on the clearance of TPA in the rat. Fig 3 shows that preinjection of GST-RAP (40 mg/kg) strongly affected the pharmacokinetics of ^{125}I-TPA (600 μg/kg). At 10 minutes after injection, 21±1% of the injected dose still resided in the circulation, and the clearance was reduced significantly, by 63% (1.30±0.03 and 3.5±0.2 mL/min for GST-RAP–treated and control, respectively; Fig 4). GST-RAP pretreatment led to a delay in liver uptake of ^{125}I-TPA, and maximal liver uptake was reduced to 60±2% of the injected dose.

Effect of M_6L_5 and GST-RAP on the Hepatocellular Distribution of TPA

To determine whether the receptor antagonists M_6L_5 and GST-RAP indeed blocked uptake of ^{125}I-TPA via the corresponding receptors, we studied their effects on the uptake of ^{125}I-TPA in

the various liver cell types (Table 1). As described before,[7] parenchymal and endothelial liver cells appeared to be the major cell types responsible for liver uptake of ^{125}I-TPA in control rats; 55±1.5% of total liver uptake of ^{125}I-TPA was recovered in parenchymal liver cells, and 40±2% was recovered in endothelial cells. Preinjection of M_6L_5 (1.2 mg/kg) caused a significant shift in the liver cell distribution profile. Parenchymal liver cell uptake increased significantly, to 71±3%, while at the same time the relative contribution of endothelial cells to ^{125}I-TPA uptake decreased to 19.5±1% of the total liver uptake. The increase of the relative contribution of parenchymal liver cells was not caused by enhanced uptake per milligram of cell protein. The specific parenchymal liver cell uptake of ^{125}I-TPA was not influenced by preinjection of M_6L_5, in contrast to the specific endothelial cell uptake, which was reduced by 72% (124±5% and 430±40% of injected dosex10^3/mg cell protein for M_6L_5-treated rats and for controls, respectively).

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Table 1. Contribution of Various Cell Types to the Liver Association of ^{125}I-TPA: Effect of Preinjection of M_6L_5 or GST-RAP

By contrast, GST-RAP treatment reduced parenchymal cell uptake by 65% (7.6% versus 21±4% of injected dosex10^3/mg cell protein for GST-RAP–treated and control rats, respectively). Concomitantly, specific endothelial cell uptake was increased by 44% to 619% of injected dosex10^3/mg cell protein on GST-RAP treatment. Apparently, TPA uptake is partly compensated by an increased uptake by mannose receptor in case the LRP-mediated pathway is blocked. Both GST-RAP and M_6L_5 preinjection did not significantly affect Kupffer cell uptake of TPA.

Effect of Combined Treatment With M_6L_5 and GST-RAP on the Plasma Clearance and Liver Uptake of ^{125}I-TPA

These findings demonstrate that although GST-RAP and M_6L_5 both affect TPA clearance, blockade of either receptor system is not sufficient to prevent clearance of TPA. Therefore, we treated rats with both M_6L_5 (1.2 mg/kg) and GST-RAP (40 mg/kg) and determined that the plasma clearance of ^{125}I-TPA (600 μg/kg) was almost completely blocked (Fig 5). At 10 minutes after injection, 70±7% of the injected dose is still recovered in the plasma, which is significantly more than in untreated controls (8±0.4%), in M_6L_5-treated rats (21±3%), or in GST-RAP–treated rats (21±1%). The TPA clearance is reduced almost 10-fold, from 3.5±0.2 mL/min for the control rats to 0.42±0.05 mL/min for the combined treatment (Fig 4). Moreover, liver uptake of ^{125}I-TPA was almost completely abolished after preinjection with GST-RAP and M_6L_5. Only 18.7±0.8% of the injected dose, at maximum, was recovered in the liver, compared with 86±1.5% for controls.

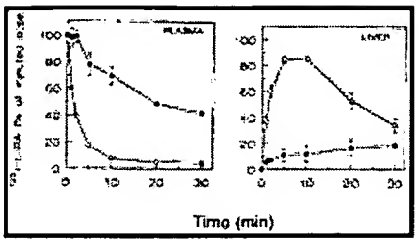

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Figure 5. Effect of simultaneous preinjection of GST-RAP and M_6L_5 on the plasma decay and liver association of ^{125}I-TPA. ^{125}I-TPA (600 μg/kg) was injected intravenously into rats that had been preinjected at 1 minute before TPA injection with PBS (○) or 40 mg/kg GST-RAP plus 1.2 mg/kg M_6L_5 (■). At the indicated times, radioactivity in plasma and liver was determined. Data points are mean±SEM of three (treated rats) or eight (control) experiments.

To exclude the possibility that the observed effect of combined treatment with GST-RAP plus M_6L_5 on TPA clearance resulted from an aspecific effect of GST-RAP and/or M_6L_5 on hepatic blood flow or receptor-mediated endocytosis in general, we also tested the effect of combined treatment on the in vivo kinetics of ^{125}I-ASOR, which is an established substrate for the asialoglycoprotein receptor. No effect of combined treatment was observed on liver uptake or plasma clearance of ^{125}I-ASOR. The plasma half-life of ASOR was 0.53 minute in treated and 0.51 minute in untreated rats (data not shown).

Toxicity of M_6L_5

To validate the potential of M_6L_5 as a therapeutic additive in thrombolytic therapy, we assessed the acute toxicity of M_6L_5 (Table 2). Even at doses (6 mg/kg) 5 to 50 times higher than doses used in this study, M_6L_5 was essentially nontoxic after single bolus injection. Liver, spleen, and kidney weights remained unaffected, and serum parameters for systemic (lactate dehydrogenase) and liver toxicity (alanine aminotransferase, aspartate aminotransferase, and γ-glutamyl transferase) at 2 hours and at 24 hours after injection were essentially unaltered. Histological analysis of liver did not show any signs of toxicity. We may therefore assume that the toxicity of M_6L_5 is very low.

View this table: **Table 2.** Toxicity of M_6L_5 in Rats
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Discussion

The therapeutic effectiveness of the highly potent thrombolytic agent TPA is reduced by its rapid elimination from the bloodstream, which results from an efficient liver uptake. A first approach to improve the pharmacokinetics of TPA has been the construction of TPA mutants that lack those domains responsible

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for hepatic uptake.[18] [19] [20] [21] [22] [23] [24] [25] [26] [31] [32] [33] We used another, still unexplored, approach and developed a highly specific antagonist for the mannose receptor, which is responsible for 40% of the liver uptake of TPA.

In search of high-affinity mannose receptor ligands, we synthesized a series of cluster mannosides that contained two (M_2L) to six (M_6L_5) mannose residues per cluster molecule. The cluster mannoside that carried two mannose groups (M_2L; K_i, 16 μmol/L) already displayed a 250-fold higher affinity than α-D-mannose (K_i, 4.0 mmol/L). The most potent mannoside, M_6L_5, had an affinity for the mannose receptor of 0.41 nmol/L, which is substantially higher than that of ovalbumin (K_i, 290 nmol/L[14]) or mannosylated BSA (K_i, 2.2 nmol/L[34]) and quite similar to that of TPA (K_i, 0.6 nmol/L[14]). Previously developed synthetic mannosides—mostly branched oligosaccharides—possessed affinities only in the low micromolar range,[35] which is >1000-fold lower than the affinity of M_6L_5. The subnanomolar affinity of M_6L_5, in combination with its accessible synthesis, makes M_6L_5 a promising compound to inhibit mannose receptor–mediated uptake of TPA.

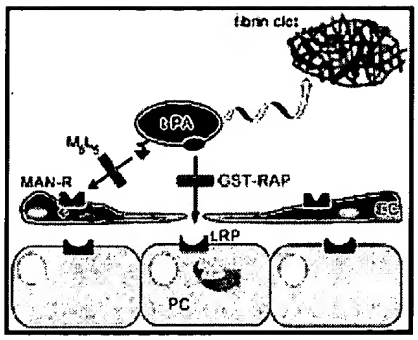
In vivo, M_6L_5 significantly and dose-dependently inhibited the clearance of ^{125}I-TPA (injected at a therapeutic dose of 600 μg/kg) by up to 59%. The reduction in liver uptake of TPA by M_6L_5 treatment resulted from a specific inhibition of TPA uptake by endothelial liver cells. This corresponds well with earlier studies showing that the clearance of deglycosylated TPA mutants was retarded by a factor of 3 compared with unmodified TPA.[18] [30] [35] Blockade of the plasma clearance of TPA could be reduced 2.6-fold on blockade of the mannose receptor by high doses of mannan (20 mg/kg) or ovalbumin (80 mg/kg).[7] [11] These data illustrate that M_6L_5 is 15- to 70-fold more effective than ovalbumin and mannan in the in vivo blockade of TPA clearance via the mannose receptor. Toxicity studies showed that M_6L_5 is tolerated well at doses 5- to 50-fold higher than the doses that were needed to inhibit TPA clearance. No signs of acute systemic or liver toxicity were observed after single injection of 6.0 mg M_6L_5/kg. Moreover, M_6L_5 is probably far less immunogenic than mannan or ovalbumin. It can therefore be concluded that the high affinity and specificity of M_6L_5 for the mannose receptor, together with its low toxicity, makes it a valuable therapeutic to improve the pharmacokinetics of TPA.

To establish the involvement of LRP in TPA clearance, we quantified the effect of preinjection of GST-RAP (40 mg/kg) on TPA clearance. GST-RAP, a widely used antagonist of LRP,[28] appeared to increase the plasma half-life of ^{125}I-TPA 2.7-fold. Warshawsky et al[16] showed a similar effect of GST-RAP on TPA clearance. In an extension of their study, we show that GST-RAP pretreatment delayed and reduced liver uptake of TPA significantly, by 30%, and the data on the liver cell distribution of TPA show that GST-RAP specifically reduced the uptake by parenchymal liver cells.

The effect of GST-RAP on liver uptake was comparable to that of M_6L_5. Apparently, neither antagonist can fully block the plasma clearance of TPA or TPA uptake by the liver. The simultaneous blockade of LRP and the mannose receptor by preinjection of GST-RAP and M_6L_5 almost completely abolished liver uptake and at the same time reduced TPA clearance 10-fold. Combined treatment did not affect clearance and liver uptake of another fast-clearing glycoprotein, ASOR, excluding the theory that the blockade of TPA clearance results from aspecific effects of the combined treatment on hepatic blood flow or receptor-mediated endocytosis. The effect of the combined treatment on the clearance of TPA matches very well with the kinetics of TPA reported in rats preinjected with an excess of unlabeled TPA (20 mg/kg).[7,16] In these studies, half of the injected dose of TPA was still present in the circulation at 30 minutes after injection.[7,16] Prevention of the liver uptake of TPA by hepatectomy also resulted in a 10-fold decreased clearance.[6,9,10] Apparently, TPA clearance is prolonged by a factor of 10 by prevention of its liver uptake. Recently, Narita et al[36] reported that the plasma half-life of TPA (10 μg/kg) in RAP-overexpressing mice was enhanced to 20 minutes after preinjection of 150 mg ovalbumin/kg body wt. Although this suggested that the mannose receptor and LRP are the sole contributors to liver uptake of TPA, that was not conclusively established. First, ovalbumin blocks not only mannose receptors but also asialoglycoprotein receptors, which was also suggested to be involved in TPA clearance.[11] Second, RAP is a chaperone protein involved in intracellular trafficking of proteins, suggesting that systemic RAP overexpression in mice may also affect other endocytotic pathways that are important for TPA clearance. Most importantly, Narita et al used tracer doses of TPA (10 μg/kg, which is 60-fold lower than therapeutic doses). At therapeutic doses of 600 μg/kg, alternative TPA uptake pathways may contribute to TPA liver uptake. This study therefore provides additional information that the mannose receptor and LRP are indeed the only major contributors to the liver uptake and rapid clearance of TPA.

In conclusion, we now show that therapeutic levels of plasma TPA can be maintained for a prolonged time span by blockade of both LRP and the mannose receptor–mediated liver uptake of TPA (Fig 6). The rather unexplored approach to improve the clinical effectiveness of TPA by means of receptor blockade involves the combined application of the mannose receptor ligands used in this study and TPA-specific LRP antagonists. As a result, lower doses of costly TPA will suffice for thrombolytic therapy, and TPA pharmacokinetics will be greatly improved, leading to fewer unwanted side effects. Blockade of LRP-mediated uptake of TPA by GST-RAP requires rather high doses, which qualifies its potential in thrombolytic therapy. However, more specific and potent LRP antagonists may be developed by combinatorial immunoglobulin repertoire cloning,[37] or recently described truncated RAP mutants[38] may be applied for this purpose. Compared with application of new slow-clearing TPA variants, application of one of the above antagonists in thrombolytic therapy offers the advantage that it may improve the thrombolytic activity of wild-type TPA, an acknowledged and successful fibrinolytic agent.

Figure 6. Concept for mechanism by which mannose



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receptor and LRP antagonists interfere with TPA catabolism. TPA exposes two domains that interact with mannose receptor on endothelial cells and LRP on parenchymal liver cells, respectively. GST-RAP prevents uptake via LRP, and the newly devised cluster mannoside M_6L_5 prevents mannose receptor–mediated uptake of TPA. Combined therapy totally blocks liver uptake, and subsequently, more TPA is available for the lysis of blood clots. Man-R indicates mannose receptor; PC, parenchymal liver cell; and EC, endothelial cell.

Selected Abbreviations and Acronyms

α_2M	= α_2-macroglobulin
ASOR	= asialoorosomucoid
GST-RAP	= fusion protein of glutathione *S*-transferase and α_2M-receptor–associated protein
LRP	= LDL receptor–related protein
M_6L_5	= N^2-[N^2-[N^2-[N^2,N^6-Tris[*N*-(*p*-(α-D-mannopyranosyloxy)anilino)thiocarbamyl]-L-lysyl]-N^6-[*N*-(*p*-(α-D-mannopyranosyloxy)anilino)thiocarbamyl]-L-lysyl]-N^6-[*N*-(*p*-(α-D-mannopyranosyloxy)anilino)thiocarbamyl]-L-lysyl]-N^6-[*N*-(*p*-(α-D-mannopyranosyl-oxy)-anilino)thiocarbamyl]-L-lysine
TPA	= tissue plasminogen activator

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References

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